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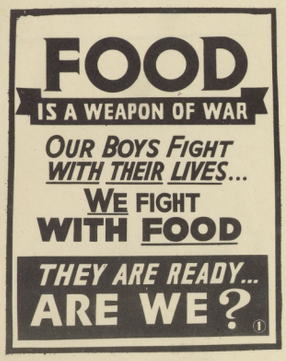

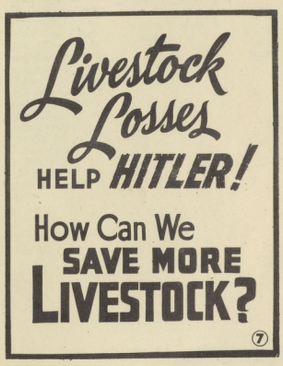

UNITED STATES DEPARTMENT OF AGRICULTURE

DIRECTOR OF EXTENSION WORK

WASHINGTON, D. C.

March 29, 1944

To: Marvin Jones, War Food Administrator

From: M. L. Wilson, Director of Extension Work

Last year, when you designated the Extension Service as the responsible agency to handle all general educational programs among farmers in connection with the 1944 goals program, your assignment was met with enthusiastic response on the part of all of our State extension services. They cooperated to the fullest extent with the other war food agencies represented in the respective States. They actively participated in the State goal meetings and worked closely with the other agencies in developing both educational programs and materials. They have concentrated their fullest and number one effort on educational programs which would provide farmers with the information necessary to reach their fullest production of the vital crops indicated in the State goals.

There are, of course, no tangible means of measuring the full effect of these educational programs. I believe, however, that you will be quite interested in the visible evidence of support contributed by the extension services of each of the 48 States and the territories of Alaska, Hawaii, and Puerto Rico which I am transmitting herewith. The material consists of samples of literature issued between the time of the goal meetings last fall and March 1 of this year. We know, of course, that much additional material will be made available in each State this spring, but I wanted you to have a copy of the outstanding items issued to date.

You will find one set of each State's materials put into a binder together with a summary statement by the State director of extension telling how the war food educational program was organized in his State. In addition we have put together typical materials relating to various phases of the program.

I know that you will find this response on the part of the cooperative extension services stimulating. They have shown a real spirit of unity and cooperation in servicing the farmers in their States with the vital information they must have in order to meet their own, the States, and the Nation's food production goal for 1944.

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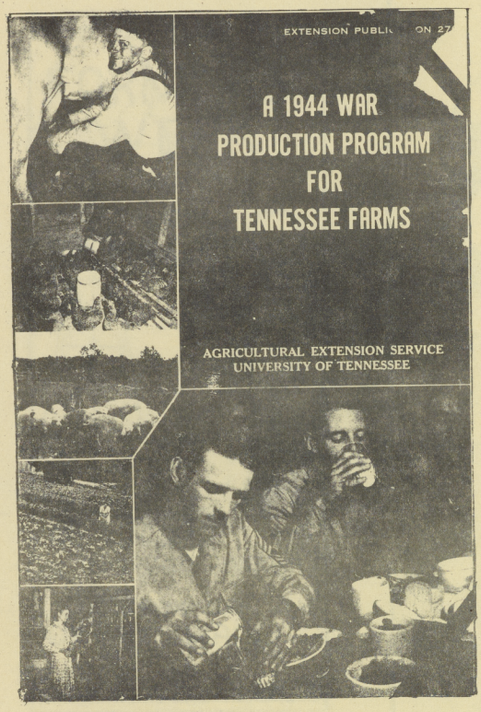
Presentation of 1944 WAR FOOD

COMMITTEEMAN
WAR FOOD PRODUCTION
U S D A

OUR EXTENSION JOB
FOR 1944
and
MY PART IN IT

MASSACHUSETTS EXTENSION SERVICE
MASSACHUSETTS STATE COLLEGE
UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATING



COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U. S. DEPARTMENT OF AGRICULTURE AND STATE LAND-GRANT COLLEGES COOPERATING

FOOD FIGHTS FOR FREEDOM
Poultry Enrollment

As my part in the 1944 production program:

1. I shall cull all unproductive birds .....
2. I plan to seed ..... acres of ladino clover mixture, or top-dress ..... acres of permanent grass with fertilizer for poultry range.
3. I plan to develop adequate and rat-proof storage on my farm ..... I should appreciate storage plans .....
4. I have ..... boys, ... girls interested in joining a 4-H Poultry Club.

Signature .....

Address .....

The Extension NEIGHBORHOOD LEADER *Digest*

Tell your neighbors

To Do These Things:

1. Keep West Virginia green by preventing forest fires.
2. Mow broomsedge fields. Humus is lost when fields are burned over.
3. Put an end to food wastes.
4. Plan well-balanced meals for health.
5. Use recommended poultry practices.

Remind Them Also to:

1. Get the garden ready for early planting.
2. Check their supplies of fertilizer, garden seed, spray and dusting equipment, and order at once anything needed.
3. Conserve feed for livestock and use home-grown feeds to best advantage.
4. Plan now for labor which they will need in growing crops this year.

Food Is Life

OHIO

CORN YIELD CLIMBS BY MANAGEMENT

FOR 70 years Ohio's corn yield held monotonously constant at 37 bushels. Then with dramatic suddenness it surged upward a full 10 bushels due to a single impetus—hybrid corn.

Other opportunities—individually challenging, effectively commanding—offer substantial returns in the future.

An array of practices and an appraisal of what each promises are here catalogued.

Adapting all Better Practices to Each Farm could Double Ohio Corn Production

SOCRATES: "If the husbandry is neglected, the soldiers must starve."

37 bu. level of corn for years: by open-pollinated strains and practices com- to that era.

+10 **47 bu.** Yield level now, attained in last 8 years; by hybrids in common usage up to 1943; on 80% of area.

+6 **53 bu.** Level attainable: by and if the proven group of superior hybrids were to supplant existing out-moded ones. Realizable within 5 years through expected rate of increase in seed stocks.

+4 **57 bu.** By protection to one-half the stock of manure — the fraction now wasted by exposure. 1½ bu. more could be had from each of the 3 tons so protected in the state average 6-ton application.

+6 **63 bu.** By expanded input of organic matter through shift to heavier types of legumes on one-half of cropland, providing 1000–2000 lbs. more root material and upping yield 12 bu. an acre on that area. Need to extend: alfalfa 2 times, sweet clover 5, true clovers 1½ times; halve timothy and timothy-clover. Accompany shift with liming.

+3 **66 bu.** By extended input of organic matter through leaving crop residue on one-half of cropland each year. The remainder suffices for litter needs of livestock. On that area yield would be upped 6 bu. an acre.

The practice requires coincidental use of: (a) nitrogen-rich legumes or (b) commercial nitrogen, to lend digestive power to the soil.

+5 **71 bu.** By retention of rainwater against run-off, enlarging the volume trapped by soil and usable to crop. An added 8 bus. are promised on 70% of cropland, retention measures being applicable to slopes in excess of 2%.

Proven aids to ready intake include: (a) contour farming, (b) stripping on contour, (c) roughened or ribbed surface by planned tillage.

+4 **75 bu.** By renewal of soil tilth to stabilize the air-moisture ratio in soil at the point most favorable to the crop. Up to now it has been a matter of accident. Favorable tilth can be processed by a dual program of: (a) planned frequency of a sod with roots capable of creating tilth, plus (b) tillage planned to better tilth but not do violence to it.

Befitting all but sand, muck, and mild textured dark soils.

+5 **80 bu.** By doubling usage of fertilizer, bringing it to the apparently economic level of about 140 lb. per acre of cropland yearly. This second increment to our current usage of 70 lb. would return: 4 bu. in Corn Belt section of state; 6 bu. elsewhere.

+3 **83 bu.** By matching rate of planting to the capability of land. Upping rate to 12,000 plants per acre on land possessing 80 bu. capability or more promises 6 extra bushels there. (Present rate about 9,000.)

Were the foregoing practices in full swing, this one could spread to one-half of Ohio's corn patch.

THE TRINITY OF ORGANIC MATTER

THE DUTY OF WATER AND AIR

PAST ⇦ NOW ⇨ FUTURE

By J. SLIPHER
Agricultural Extension Service
The Ohio State University
Columbus, Ohio

THE OHIO STATE UNIVERSITY and the UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE, H. C. RAMSOWER, Director, Colmar
Printed and distributed in furtherance of Acts of May 8 and June 30.

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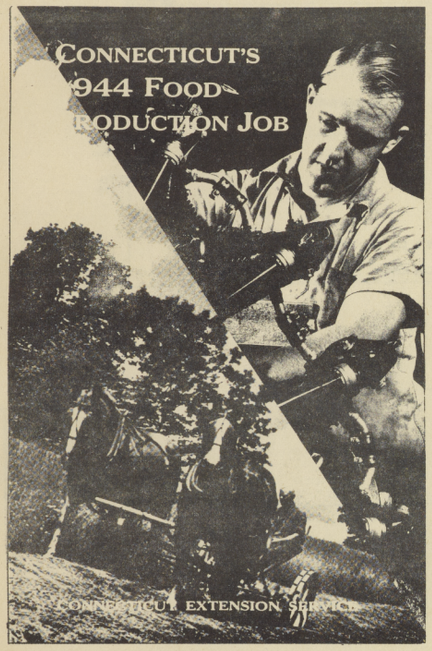
PRODUCTION GOALS



COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF KANSAS

Kansas State College of Agriculture and Applied Science and United States Department of Agriculture Cooperating

Extension Service
Agricultural Specialists

January 19, 1943

Dear Cooperator:

I believe that most of us realize the value of FOOD to the war program, and most of us are going to produce as much as possible. The weather is the only uncontrollable factor, but the ravages of adverse weather conditions are not as great when other production factors are optimum. Good production practices help resist adverse weather conditions.

Better, seed, better seedbed preparation, better seeding practices, better dates and rates of seeding, better care during the growing season, and better harvesting methods will produce more FOOD AND FEED!

Wartime Extension Folder No. 8 February,

Produce YOUR Share

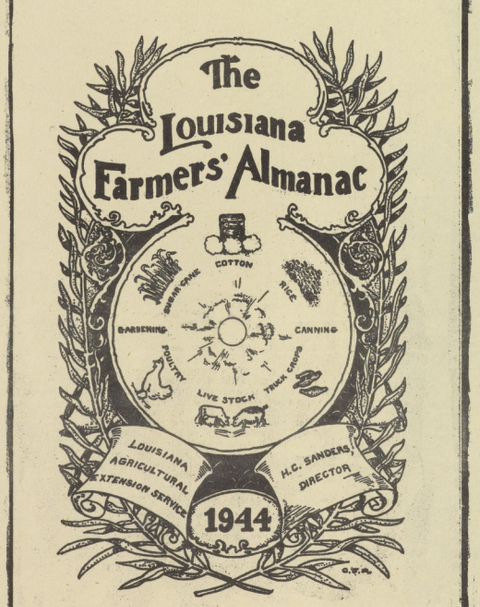
Prepared by
Members of Extension Service and Experiment Station Staffs

Food Fights For Freedom

3

ve Extension work in Agriculture and Home
s, University of Delaware and U. S. Department
ulture Cooperating. Published in furtherance of
Congress, May 8 and June 30, 1914.

USTER, Director BETTY BURCH, Acting Editor



COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF KANSAS

Kansas State College of Agriculture and Applied Science and United States Department of Agriculture Cooperating

Extension Service
Home Economic Specialists

Foods and Nutrition Project (GEA) (MGF)
When Food Is Rationed -- Leaders' Guide
Manhattan, Kansas

WHEN FOOD IS RATIONED

Before the Unit Meeting:

1. Collect suggestions and recipes for extenders and alternates for rationed foods.
2. Make a chart for menus.
3. Get a blackboard or roll of wrapping paper to use when listing alternates and extenders.

One-Half Day Meeting: When Food Is Rationed

1. Discuss:
   a. Why food is rationed.
   b. What foods are rationed.
   c. What alternates and extenders can be used to take the place of rationed foods.
   d. What nutrients are supplied by each rationed food and how can these nutrients be supplied by other foods.
2. List alternates for meat, fruit, and sugar.
3. Make a list of the ways to extend meat.
4. What kind of sugar-saving recipes are most needed.
5. Make lists of sugar-saving recipes:
   a. Desserts for working men.
   b. To pack in lunches.
   c. For everyday family meals.

All Day Meeting: Balanced Meals in Wartime

A.M. Prepare demonstration meal.
P.M. Distribute recipe sheets.
Discuss recipes used and those on recipe sheet.
Plan menus around main dishes suggested by leaders and members on the charts made at the training school.

Things To Do At Home:

1. Try new foods as alternates for rationed foods.
2. Watch for new recipes using alternate foods or extending rationed foods.
3. Plan menus around main dishes using extenders and alternate foods.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF IOWA

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IOWA STATE COLLEGE OF AGRICULTURE
U. S. DEPARTMENT OF AGRICULTURE
COUNTY FARM BUREAU CO-OPERATING

EXTENSION SERVICE
AGRICULTURE
HOME ECONOMICS
CLUBWORK

_____, Ia.
Feb. 25, 1944

DEAR FOOD PRO

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NEWS LETTER

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HOME PROJECT

SUGGESTED PLAN FOR FOLLOW-UP WORK BY HOME PROJECT LEADERS

B-145
(11)

YOUTH

SUGGESTIONS FOR PARTICIPATION OF YOUTH GROUPS IN
"FOOD FIGHTS FOR VICTORY" CAMPAIGN

B-145
(10)

NEIGHBORHOOD MEETING

SUGGESTED PROGRAM FOR A NEIGHBORHOOD OR COMMUNITY MEETING

WAR FOOD PROGRAM 1944

B-145
(7)

NEIGHBORHOOD
LEADERS

B-145
(2)

PLAN

WAR FOOD PROGRAM 1944

FOOD
FIGHTS
FOR
VICTORY

LET'S TALK IT OVER ____

STATE EXTENSION CONFERENCE
I S C
AMES IOWA
FEBRUARY 14-1944

FOOD
FIGHTS FOR
VICTORY!

Let's Talk It Over

AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
FEBRUARY, 1944 ★ ★ ★ AMES, IOWA

Shortcuts
★ in ★
FOOD PRODUCTION

AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
FEBRUARY, 1944 ★ ★ ★ AMES, IOWA

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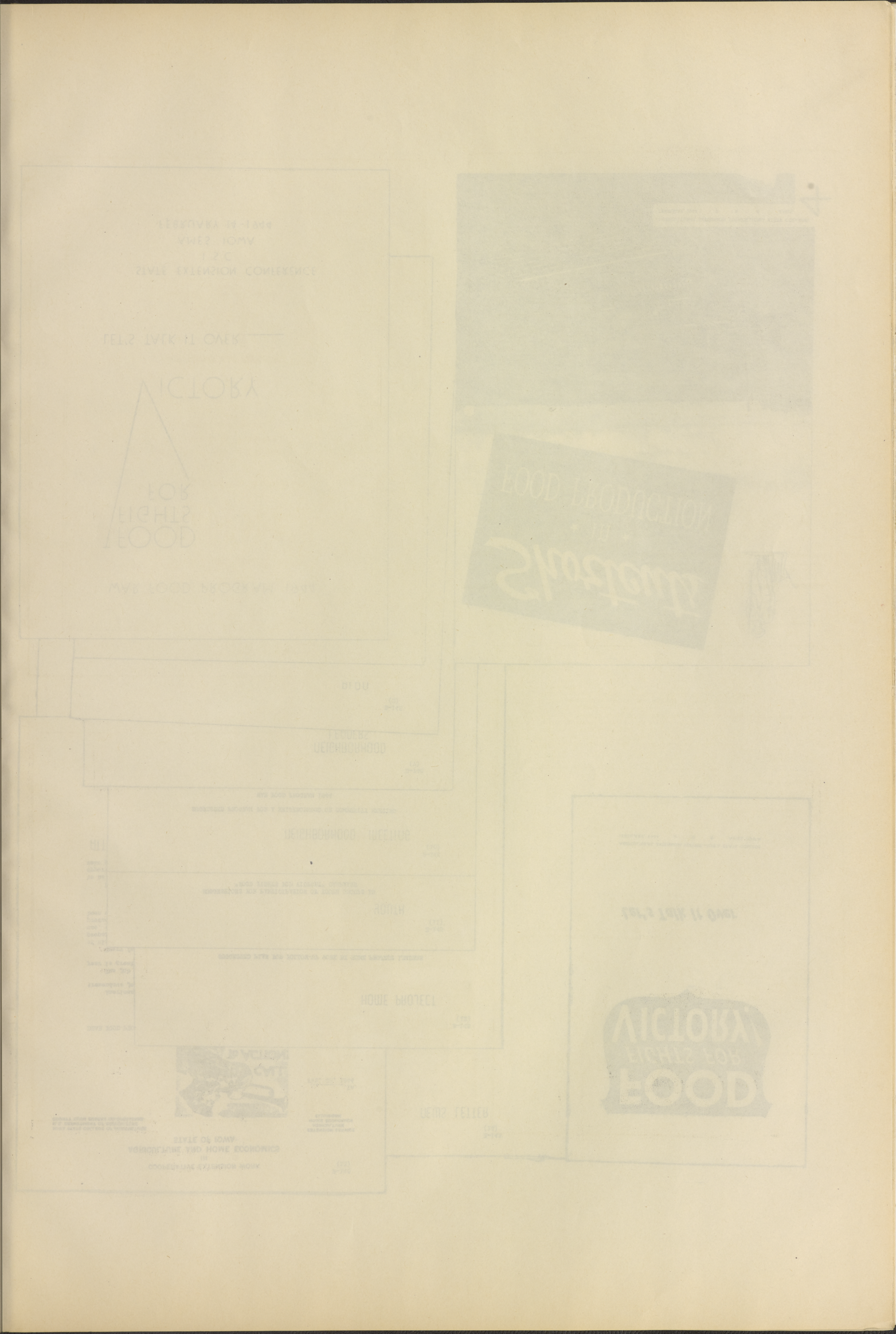


Bulletin 633 January 1944

Handbook for Food Production in New York State 1944

The farmers' part in the war effort is the maximum production of food.

In 1943, in spite of unfavorable weather, of shortages in machinery, equipment, and supplies and with less labor available and much of that inexperienced, the farmer and his family gave the Nation the largest total food production in the history of the country.

To meet America's food needs, and consistent with good farm-management practices on the individual farm, each farmer is again asked to make adjustments in his farm business and to produce the several food products in the proportions needed.

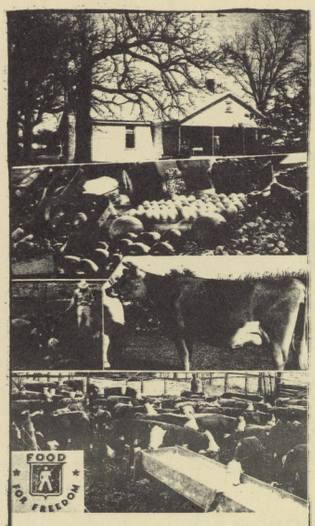
The practices recommended in this bulletin will increase production, and thereby insure an earlier victory, and will personally benefit the farmer who adopts the practices.

The ingenuity, resourcefulness, and intelligence of the New York farmer will help him to overcome again the many difficulties that are inevitable in wartimes.

Cornell Extension Bulletin

Published by the New York State College of Agriculture at Cornell University, Ithaca, New York

L. R. Simons, Director of Extension



FARM FAMILY'S WAR PROGRAM

QUIZ PROGRAMS FOR WEPA MEETINGS

Hold a quiz program during the recreation period of your next school district meeting. Folks like them, and they're an entertaining way of presenting the subjects included in the wartime educational program. You can vary your programs by using the different methods described in this leaflet.

Extension Service in Agriculture and Home Economics
College of Agriculture University of Illinois
Urbana, Illinois

November, 1943

RSE-99

alfa.
are two things I like.
re corn planting.
my tall, dense growth.
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sh, soap, linoleum,

en you have a stomach-

(A) I AM THE CASTOR BEAN.

(7) 1. They say I'm the key crop for wartime food production!
(6) 2. I'm another member of the "bean" family.
(5) 3. Deliver me from sour land! I hate acid.
(4) 4. Unlike my cousin, soy, I help prevent erosion.
(3) 5. I usually benefit corn, though sometimes the grape colaspis which feeds on my roots injures corn severely.
(2) 6. I take nitrogen out of the air and put it into the ground.
(1) 7. With me around, you'll have more corn and better fed livestock.
(A) I AM CLOVER.

10,000 copies of this Handbook were issued for AAA Committeemen and leaders

IOWA LEADER'S

HANDBOOK

1944 Food Production Program

For Use by All Groups and Agencies Who Will Assist in the Iowa Food Production Program

★

FOOD FIGHTS FOR FREEDOM!

★

PREPARED BY THE IOWA USDA WAR BOARD
PUBLISHED BY
AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
JANUARY, 1944—MISCELLANEOUS PUBLICATION—AMES, IOWA

FARM ECONOMIC FACTS

DECEMBER 15, 1943
Issued by the Extension Service, Massachusetts State College, Amherst, Mass. and compiled by Dept. of Agriculture, Economics and Farm Management.

MASS. FARM OUTLOOK FOR 1944

MORE FOOD NEEDED IN '44

There will be no let-up in the unlimited demand for farm products during 1944. In fact, the demands will be greater than during 1943 even though the European phase of the World War II should subside. These insatiable demands will not result in much increase in farm prices during 1944 if the Administration's "hold the line" policy prevails. Massachusetts agricultural production in 1944, in line with that of the nation will probably exceed the record production of 1943, provided we have no extensive adverse weather conditions. If the price line does hold, at least within reasonable limits, Massachusetts net farm incomes will be higher in 1944 than during 1943.

GREATER DEMANDS FOR FOOD DURING 1944

Industrial Production Pushes Upper Limits —Last February the industrial production of this country passed 200 as compared with 108 during the pre-war years, 1935-39. Since then further increases have come slowly. A new high of 205 was reached during the latter part of this summer. About two-thirds of this production is for war goods It is likely that industrial production will be stretched to 210 for 1944.

Non-agricultural Employment and Income —It is probable that industrial production will be increased even with a shrinking labor force since we have practically reached the limits of our employable manpower. It is estimated that approximately 61.2 million people have been employed during 1943. Of this total employment, approximately 42.1 million have been employed as civilians and 9.1 in our military forces. It is likely that our military forces will absorb another two million during the next year and that civilian employment will decline slightly.

Increased production will come from increased output per worker through longer hours and increased efficiency and further shifting from less essential to more essential jobs, which generally means shifting from lower to higher paid jobs. Total income payments for all people in the United States will total around 142 billion dollars for 1943, over twice those of the pre-war years, 1935-39. Next year they will probably increase around 15 billion dollars over 1943.

Civilian Demand — This increased purchasing power will create a tremendous increased demand for food products. Not only do consumers have more money but the production of durable goods has been curtailed, thereby leaving a larger portion of these enlarged incomes for food purchases. With the incomes of 1943 and 1944, the public would consume about 25 or 30 percent more food than they did during the pre-war years if they were given a free hand in buying.

It is estimated that the nation's farmers produced 32 percent more food during 1943 than they did during the pre-war years and they will probably produce even more next year. Thus, domestic consumers, if left alone, would just about consume all that is now produced. However, through rationing programs domestic consumption is being limited to pre-war levels and the increased production is being used largely for war purposes.

Lend-lease Demand — War requirements for agricultural products in 1943 took one-fourth of our agricultural food production as compared with 14 percent in 1942 and 6 percent in 1941. With more persons in the armed forces, the military demand for food is likely to increase even though military stockpiles are drawn upon for part of the increased needs during 1944. Australia and New Zealand have been furnishing food to our troops on "reverse lend-lease" but our European allies do not have surpluses of the more important foods required by our armed forces. Furthermore, any surpluses which may be available in Europe or Africa will be required for relief in liberated areas in Europe. Lend-lease and foreign relief demand will be especially strong for foods of high nutritive value, such as dried milk, dried eggs, canned meat, and dried fruits and fats.

Prices

Prices of all commodities except farm and food products have virtually been stabilized, having increased only 8 percent during the three-year period, 1941-43. At the beginning of the war, however, food and farm prices were relatively lower than other prices and they were allowed to advance in price before being placed under controls. During the past two years, food products have gone up almost 25 percent and farm products have increased over 40 percent. Practically all Massachusetts farm commodities are now under price ceiling regulations except for some vegetables. It is likely that the remaining products will sooner or later come under price ceiling regulations and that farm and food prices will be practically stabilized if the "hold the line" order prevails.

"Hold the Line" Policy — The Administration is definitely committed to "hold the line" as far as prices are concerned. Congress has granted sufficient powers to "hold the line" and it will be held if the public backs up the Administration. If the line should be raised or broken, then Massachusetts farmers would stand to lose through the inflation that would follow. Farm costs would almost certainly go up faster than the price of our products.

If the "hold the line" policy does prevail, then Massachusetts farmers can count on prices next year only slightly higher than those received at present. Increased volume of business and more efficient production methods brought about under wartime pressure would mean, however, a further increase in Massachusetts farm incomes during 1944.

To Ohio Dailies.
Release on Receipt

CAN PRODUCE 20 PER CENT MORE SOYBEANS

Columbus, O., January___: National leaders request farmers to produce 20 per cent more soybeans in 1944 than were harvested in 1943, but that does not necessarily mean that 20 per cent more acres must be planted. A War Food Production Committee at Ohio State University decided the 20 per cent gain in Ohio should be obtained by planting about 5 per cent more acres and by improving yields enough to obtain the balance of the increase.

If the Committee's recommendations are followed, Ohio farmers will plant 1,500,000 acres of soybeans in 1944. The yields on all the acres can be improved by planting better varieties, by inoculating all seed before planting, by liming the soil before planting, and by planting on the contours on sloping fields.

Agronomists at the University expect that selection of oil-rich soybean varieties would increase yields in the state by a total of 400,000 bushels, seed inoculation would add 300,000 bushels, and applications of lime on all land planted would produce 7,500,000 extra bushels. Lime applications preceding soybeans should be at about the same rate as would be required to prepare the soil for growing clover.

The varieties of soybeans recommended for planting in different sections of Ohio are listed in all county agricultural agents' offices. As fast as seed becomes available, Earlyana and Lincoln should replace all present recommended varieties except Richland. Earlyana, Lincoln, and Richland should constitute 75 to 80 per cent of all Ohio soybean plantings by 1946.

ajp

1-11-44

Cooperative Extension Work in Agriculture and Home Economics--State of Ohio
Ohio State University and U.S. Dept. of Agr. Cooperating: H.C. Ramsower, Director

1944 WARTIME FAMILY LIVING OUTLOOK

"We will win the European war in 1944. The only thing needed....is for every man and woman, all the way from the front line to the remotest hamlet of our two countries, to do his or her full duty."

- General Eisenhower - Dec. 27, 1943

My Job as a Wartime School District Leader —working with my neighbors as a representative of the—

UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
Extension Service in Agriculture and Home Economics

NORTH DAKOTA AGRICULTURAL COLLEGE
EXTENSION SERVICE

Food Production Goals For 1944

State of Washington and Individual Counties

AGRICULTURAL EXTENSION SERVICE
The State College of Washington
Pullman, Washington

"Food will win the war and write the peace."

PLANNING THE FARM FOR FOOD PRODUCTION FOR 1944

Prepared by the Department of Agricultural Economics
for use in Local Wartime Educational Meetings

Maximum production of essential food, fat, and fiber products is the p
mary goal of Illinois agriculture for 1944. We are entering the grimmest stage
the war from the standpoint of losses of men at the front, possible letup in foo
production, dangers of inflation, and other undesirable conditions.

This is no time to relax our wartime efforts, even though our labor su
is limited. Millions of people will go hungry as a result of the war. The popu
tion of the United States increased by one-third, or 33 million people, from 191
1939. To feed our own people, our armed forces, and to help feed undernourished
ple abroad will require a huge amount of food.

Eight states--Illinois, Indiana, Ohio, Michigan, Minnesota, Iowa, Misso
and Wisconsin--are asked to produce the following percentages of our total natio
acreages or production: corn, 62; soybeans, 82; pork, 65; milk, 43; beef, 37; a
eggs, 39 percent. This area produces a large part of our surplus agricultural p
ucts. Food production in 1943 was 32 percent above the average of 1935 to 1939.
About 75 percent of our total food will go to the civilian population, 13 percen
the armed forces, and 10 percent to lend-lease in 1943. The domestic demand for
is higher than under normal conditions as a result of the large purchasing power
industrial workers. Our present large food supply is chiefly the result of high
yields for seven years. All livestock was at a peak of production in 1942 and 19
largely because of abundant feed supplies.

Illinois has been asked to increase the production of corn, wheat, and
beans by about 1,250,000 acres in 1944. This represents 10 acres more of these c
for every 100 acres grown in 1943. Increases in corn production are asked for in
northern one-sixth of the state and west of the Illinois River. From Livingston
County south, the only increase asked in corn is in the Wabash and Mississippi Ri
bottoms. No expansion in soybean production is asked of the northern two tiers o
counties. The largest percentage increases--from 25 to 31 percent--are requested
the southern one-fifth of the state, where the expected acreage of wheat was not
planted. The central part of the state is asked to increase soybean production i
different counties from four to 29 percent. Ten counties in east-central Illinoi
are asked to grow over 70 percent of their crop land in corn and beans. Other co
ties are asked to make adjustments in line with their soil conditions. In genera
the goals requested tend to move the corn belt to the north and the soybean area
the south.

Illinois is asked to increase dairy production four percent in 1944, to
duce beef with the use of less grain, and to decrease hog numbers by nine percent
market at lighter weights. The individual farmer needs to adjust his livestock p
duction to his available feed supply. If feed must be purchased, it should be se
in advance of the time it is needed.

Many farmers need to make adjustments on their own farms based upon soil
conditions, available labor, power, machinery, and other resources. Some level la
can be cropped heavier during the war period. Less productive rolling land should
be cropped so hard and should be protected by erosion control practices.

Greater Farm Production In 1944

Most important steps Missouri farmers can take for greater output of foods, oils and fibers in our third year at war are the following:

Best Use of Labor and Equipment
Increase of the Feed Supply
Larger Acreage of Food Crops
Most Effective Use of Feed
Saving All Essential Products

For complete information on practices described in this folder
See Your County Agent.

Or Write To
University of Missouri College of Agriculture
Agricultural Experiment Station
Agricultural Extension Service
Columbia, Missouri

COOPERATIVE EXTE
AND H
SI

d Agriculture, University of Illinois
States Department of Agriculture,
Cooperating

Extension Service in Agriculture
and Home Economics
Urbana, Illinois

August 28, 1943

Farm and Home Advisers:

Re: 1944 Wartime Educational Program in Illinois for Maximum Food Production with Good Soil Management

The Extension Service program for 1944 will give special emphasis to oblems confronting Illinois farmers in an attempt to secure maximum food produc- on with good soil management.

Our first and foremost efforts as farm and home advisers and representa- ves of the Extension Service, Experiment Station, and College staff, should be rected toward helping farm people produce in accordance with the national need r

1. an increase in soybeans and wheat
2. the production of as much feed as possible after providing the needed acreage for soybeans and wheat
3. the production of more milk
4. an increase in egg production
5. adjustment in meat animal production in line with feed supplies
6. more home-produced foods
7. the maintenance of health and morale.

It is recognized that many of our present activities are contributing rectly toward these goals and that they include many indirect but important contri- tions that are not named in these major food production requests. These activities ould continue. However, to achieve the greatest possible results in 1944 on ximum food production with good soil management it is important that all concerned ink, plan, and work together on the job.

The actual task of delivering more soybeans, milk, eggs, and home food d at the same time maintaining the productivity of the soil is directly up to e farmer and his family. Therefore, what can each of us contribute that farm ople can apply in order to accomplish this task?

In order to help staff members anticipate problems which a practical oduction program must meet, a few questions are submitted below. Some of these e important questions on every farm. How can we, as public servants, help the rmers of Illinois recognize these problems and plan to meet them. A large part our station efforts and most, if not all, of our extension efforts during 1944 ould be focused on helping the farmer solve these and similar problems.

1. What changes in cropping plans should I make in 1944?
2. What varieties of the major crops are best for me to grow?

Cooperative Extension Work in Agriculture and Home Economics
University of Illinois College of Agriculture, Urbana, Illinois,
and U. S. Department of Agriculture cooperating

WEEKLY REVIEW AND FARM OUTLOOK LETTER

By G. L. Jordan
Professor, Agricultural Economics
University of Illinois
College of Agriculture

(Prepared January 27)

The $13.75 hog support price now applies to weights up to 330 pounds.

The support price for 1944 crop soybeans has been announced as $1.94 for No. 2 yellow beans of high oil content. In other words, the support price is 14 cents a bushel higher than last year. There will be premiums and discounts for No. 1 and off-grade beans. The whole project, however, is tied up with and dependent upon the extension of the life of the Commodity Credit Corporation and its finances and powers. This still leaves soybeans at a slight disadvantage when compared to corn in north-central Illinois on the basis of our cost of production figures.

The War Food Administration announced egg support prices at Chicago for three periods as follows:

Grade and size U. S. commercial grades	Jan. 16 to 29	Jan. 30 to Feb. 12	Feb. 13 to March 4
A, large	39.9¢	38.4¢	39.6¢
A, medium	32.9	32.4	32.4
B, large	36.9	35.4	34.4
B, medium	29.9	29.4	29.4

Comparable prices were announced for other wholesale grades. Poultrymen will be interested in the wide spread between the prices of the highest and lowest grades.

The strength of wheat prices during the past week was attributed partly to increased purchases of flour by the Army for overseas use. Another factor may have been the consideration of a renewal of the subsidy on flour to Cuba.

The following table indicates percentage changes in cold storage ho for the 12 months ending January 1, 1944:

Fresh apples	-33 percent	Butter	+517 percent	Beef	+78 p
Frozen fruits	+21 percent	Cheese	+ 34 percent	Pork	+ 4 p
Frozen vegetables	+80 percent	Eggs	+ 36 percent	Total meats	+23 p
		Frozen poultry	+ 20 percent	Lard	+75 p

The figures pertaining to butter and cheese are somewhat deceiving they include government-owned stocks. The amount of pork in storage is very larger than a year ago and almost the same as the 1939-43 average on January storage situation has not been the principal item contributing to flooded hog The limitations on slaughtering capacity have been much more important.

Milk consumption is now at record high levels. It must not increas adequate supply of manufactured milk products is to be reached. The goal is crease the number of milk cows by 2 percent and to increase production per co pounds. However, the present trend is toward slightly less production than l

GLJ:sh
1-27-44

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THE NEW ENGLAND FARMER AND INFLATION

Radio Talk by George W. Westcott, Extension Economist over WHYN, March 16,1943

Four times since 1770 this Nation has had major inflations. Prices doubled or tripled in each instance. These four inflations were all associated with wars,- the Revolution, the War of 1812, the Civil War and World War I. Each was followed by a major deflation and depression.

When prices went up during World War I some people were pleased because their incomes or the prices of the things they had to sell went up faster than others. Some people were pinched, some very seriously, because the prices of the things they bought went up faster than their incomes or the things they had to sell. People with fixed wages and salaries found that they couldn't buy as much. Farmers in the Mid West agricultural belt were momentarily pleased because the prices of the things they sold went up faster than their costs. However, New England farmers' costs went up faster than the prices of the products they sold. Land prices went up too, and many farmers took on major debts by buying land and buildings at high prices.

When prices came down following World War I they came down with a crash. Many were seriously hurt. Farm prices and incomes were cut in half. Many lost their jobs and consequently all of their income. Many lost their homes and farms. Many others have been struggling under huge debts since then. In 1921 it took twice as many farm products to pay the interest and taxes on a mortgaged acre of land as it did in early 1920 all because prices went up and then came down again.

Now we are in World War II, a bigger, tougher war with far-flung battle fronts over the entire globe rather than one European front as in World War I. As civilians it is difficult for us to appreciate the vast magnitude of this struggle. We have to adjust our imaginations to a world-wide basis. To help us in doing this it is of interest to note that when the United States dined its armed forces last Christmas, it had to be done in 62 different countries and islands scattered over the entire globe. Any comparisons with anything that has ever occurred before in the history of mankind, including World War I, is senseless and futile.

By May, 1942 prices had already started up. Wholesale prices had gone up 31 percent and they promised to continue going up with ever increasing speed. Why? Because to win this war it is necessary for us to put the greatest possible amount our labor and materials at the disposal of our fighting forces, rather than r civilian use. At least two-thirds of our efforts this year will go toward tisfying war demands and only one-third for civilian demand. At the same time l of us taken together have far more dollars to spend for civilian goods than er before.

During 1942 the income for all of us totaled about 117 billion dollars. ter we paid our taxes and saved the usual amount we still had 86 billion llars to spend but there were only 70 billion dollars worth of civilian goods l services to spend it on. Without controls, which were inaugurated last r, prices would have skyrocketed to a point where we would have spent the tire 86 billion dollars for the same goods and services which remained valued about 70 billion dollars. That would have been inflation. That would have en the start for run away prices and it would have been only the start.

Even with fairly stable wages, salaries, and prices, our total national come for 1943 will probably be around 140 billion dollars because we will be rking longer hours and more members of our families will be working. There

RADIO PROGRAM

Farmers' Week

Presented by the

College of Agriculture
Ohio State University
Columbus, Ohio

y 31, February 1, 2, 3, 4
1944

☆

roadcasting Station
WOSU
820 Kilocycles

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF ARKANSAS

UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE AND
UNITED STATES DEPARTMENT OF
AGRICULTURE, COOPERATING

EXTENSION SERVICE
COUNTY AGENT AND
HOME DEMONSTRATION WORK

EXTENSION SERVICE PROGRAM FOR 1944

Victory in 1944 depends upon everyone making his maximum contribution to the nation's war program. For the farmer this means the production of the greatest supply of food on record for our fighting forces, occupied countries, and for civilians, despite limited manpower, equipment, and other production hazards.

Therefore, the Extension Service's responsibility in 1944 is to concentrate its efforts on phases of the agricultural program that will be of greatest service to the farmers of the state in meeting their wartime responsibility.

To achieve and fulfill their responsibility, the farm people of Arkansas have recommended an agricultural program for 1944 with the following major objectives:

(1) Maximum production of farm crops and livestock products for our armed forces, lend-lease, civilian needs, and home use.

(2) Conservation and efficient utilization of all farm and home resources, including all products grown on the farm.

(3) Systematic marketing of products.

(4) Full utilization of all available labor resources.

The most effective means of projecting a county-wide program, in order to reach and assist the greatest number of people, is through organized effort. Consequently, Extension Agents will assist farm people to strengthen and expand their organizations for men, women, and boys and girls in 1944.

The achievement of the objectives outlined by the farm people of Arkansas for 1944 will depend, to an overwhelming extent, upon the development of strong, active, aggressive leaders in every farm community within the state. Other media that will be used in projecting the 1944 Extension program include method and result demonstrations,news stories, radio releases, group discussions, leaflets and circulars, county fairs, local campaigns, circular letters, and neighborhood meetings.

The Extension Service will assist farm people with such special wartime activities as war bond and stamp campaigns, salvage programs, and war relief, so that they can contribute to the total war program.

Extension Agents will shoulder the definite responsibility of planning with farm people for the postwar period, which, as the United Nations increase the strength and relentlessness of their attacks, may become a sudden reality.

-31-1-44

7

COOPERATIVE EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS
STATE OF ILLINOIS

lege of Agriculture, University of Illinois
ited States Department of Agriculture,
Cooperating

January 31, 1944

Extension Service in Agriculture
and Home Economics
Urbana, Illinois

o Farm Advisers:

Thursday, January 20, we conferred with Mr. John Bicket of the State AAA committee with reference to publicity and educational matters. In order to prevent duplication and to do our utmost to assist the farmer in his job of producing more nd more food, we have divided the responsibility as follows:

1. The AAA will be responsible for all information relating to the rules, regulations, policies and procedures involved in carrying out the activities specifically assigned to them by law or government order. This will include direct instructions to their county and community committeemen and to the public through newspaper publicity at state and county levels. The Extension Editor's Office will not duplicate publicity with respect to those rules, regulations, and instructions unless asked to do so by the State AAA Committee.

2. The Extension Service will be responsible for all educational work and publicity relating to farming operations and practices, except those directly connected with compliance with rules and regulations in connection with programs administered by the AAA.

3. The Extension Service will assist farmers to so organize and operate their farms that national and state goals will be reached. In doing this we can facilitate the whole farm program, including that which the government has assigned to the AAA.

4. The State AAA Committee will continue to provide their county and community committeemen with such information as they believe will help the committeemen do a better job of serving farm people in the capacities assigned to them by the federal government. However, publicity with respect to all phases except those relating to rules, regulations, policies and procedures involved in carrying out the programs directly assigned to the AAA will be the responsibility of the Extension Service.

5. We have made no attempt to cover every item. We know that if the heart is right and there is a general meeting of minds, details can be taken care of as they arise.

1944 FARM EDITION

BEATRICE DAILY SUN

"If You Didn't See It In The SUN It Didn't Happen"

Member of The Associated Press

PLANT A VICTORY GARDEN

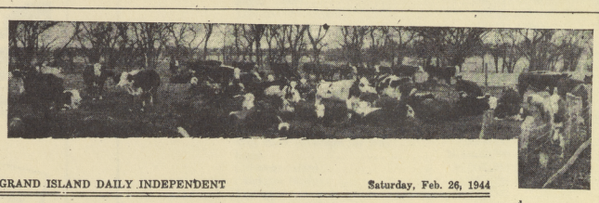
VOLUME XLII — BEATRICE, NEBRASKA, SUNDAY, FEBRUARY 13, 1944 — SECTION B — No. 185

FARM FRONT MEETING THURSD

'To Plow Or Not To Plow' That's The $64 Question

This is a story about a revival of the old-fahioned reading circle in which people, in this case, Gage county farmers, got together to read a book.

The book, "Plowman's Folly", has stirred up no end of discussion among farmers, agricultural college instructors,



Specialists From Ag To Assist In

A farm front meeting will be held the auditorium in Beatrice on February P. M. It is planned to meet in general which the group will be divided into tho and livestock and those interested in p The schedule will be maintained and f who want to shift between groups may four topics covered will be discussed ve ciaist from the college of agriculture a ing will be thrown open for questions a audience. The specialist will be assisted will help them answer the questions the dience. These farmers have been asked

ists.

1:30—Pas and 2:00—Gr Crops of agron Discus pasture fields. Round 1 Wa

Farm Income Policy Used

Closely Related To Pasture-Forage, Livestock; Each Is Dependent.

Farm income in Gage county is very closely related to pasture-forage and livestock. Not only

TRI- STATE

AT 6:45 IN THE MORNING
TURN YOUR DIAL TO 1170
WWVA
MON. TUE. WED. THU. FRI.

Call for Dairy Cows and Chickens

Livestock Goals Are Assigned

Suggest Decrease in Beef Cattle, Calves, Hogs and Turkeys

Livestock production goals for Nebraska next year suggest increases in the number of dairy cows and chickens on farms over the state and suggest decreases in the number of beef cows, cattle and calves, hogs and turkeys which will be on the farms Jan. 1, 1945. The increases or decreases are on the basis of comparison with the numbers on the farms last Jan. 1.

Goals are suggested for sheep without any comparison with the number on farms last Jan. 1.

Except for the fact that Hall county farmers are asked to produce the same number of beef cattle as they did last year, although the state goal suggests a decrease, Hall county livestock goals follow the pattern of state goals.

Feed Supplies Smaller

In terms of meat animals, farmers the nation over are being asked to market 38 billion pounds of beef, veal, lamb and mutton and this volume is nearly 50 per cent more than the average slaughter for the years 1936 to 1940, inclusive.

Feed supplies, it is anticipated, will be about 11 per cent smaller for each grain consuming animal unit than they were in 1943 but AAA officials believe the supply

cent of the nation's hogs, corn, soybeans and flax and these states also are important producers of milk, eggs, poultry, cattle and calves and processing vegetables.

In the cropland uses, low-yielding feed crops will gave way to food crops and higher yield feed crops.

Goals by Counties

Livestock goals for the 15 midstate counties served by The Independent are:

Milk cows on farms (average number during year):

County	1943	1944
Buffalo		
Custer		
Dawson		
Garfield		
Greeley		
Hall		
Hamilton		
Howard		
Loup		
Merrick		
Nance		
Polk		
Sherman		
Valley		
Wheeler		
State tot		
Beef cows a		
County		
Buffalo		
Custer		
Dawson		
Garfield		
Greeley		
Hall		
Hamilton		
Howard		
Loup		
Merrick		
Nance		
Polk		
Sherman		
Valley		
Wheeler		
State tot		
Cattle and c		

Howard	32,940	31,820
Loup	20,090	18,260
Merrick	37,400	36,030
Nance	23,760	22,880
Polk	25,120	24,200
Sherman	22,440	25,000
Valley	32,930	31,720
Wheeler	28,470	27,430
State total	3,723,000	3,551,683

Hogs (spring and fall sows):

County	1943	1944
Buffalo	16,400	13,770
Custer	33,760	27,219
Dawson	18,360	15,500
Garfield	4,360	3,440

isting facilities was required of the Grade A producers.

Twenty-six producers now are qualified to sell under the provisions of the city's Grade A milk ordinance and more of the association members are preparing to meet the requirements. Generally, the members are satisfied with the program, like the convenience of the arrangement and the ordinance has been a factor in the increased production, Baldwin says.

The Central Nebraska Milk Producers' association was set up as a

B" lunch has the same kind of food but the helpings are smaller and contain less protein, fat, mineral and vitamins. Four-H lunch clubs are eligible for the program.

Barb Wire
HEAVY BARB WIRE
$3.05

Increases In Five Crops Are Asked

Corn, Oats And Barley Head List

'AAA Goals Also Call for More Sorghums, Hay and Sugar Beets

Crop production goals assigned by the AAA to the state of Nebraska

United States civilians, the military services, lend-lease and the liberated people were first determined. Consideration next was given to the acreages that could be successfully grown and harvested, the number of livestock that could be raised under present conditions, the amount and kinds of new machinery that would be available, as well as repair parts, fertilizers, trucks and transportation facilities generally.

From all the available facts, national goals were determined by a committee at Washington and these goals were broken down into goals for each of the crop-producing states. At a state meeting held last October, the Nebraska goals were considered by representatives of

soil productivity to insure continued high production levels. Production goals for 1944 involve both an increase in total food produced and a shifting of production to certain types of food which are more essential than others in a wartime economy.

Tabulations by Counties

In the following tabulations of 1944 crop production goals for Hall

(Turn to Page 15, Col. 1)

TRACK CROSSES 6400 BRIDGES

If joined together, the 6400 bridges on one Canadian railway would span the water gap between Buffalo and Cleveland, a distance of 167 miles,

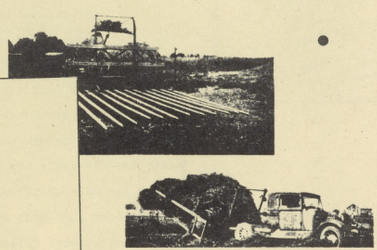
AT
DENN
BEATRICE, NEBR.

☆ ☆ ☆ Farm Front Flashes ☆ ☆ ☆

A DIGEST FOR MICHIGAN FARM LEADERS, PREPARED BY EXTENSION SERVICE, MICHIGAN STATE COLLEGE

JANUARY 15, 1944

Time to Build This Labor-Saver



is a labor-saver. One farmer describes the utility of this tool as and I put up our hay and we hardly used a sweat." have come in, relating how boys of 17 and men of 70 have put up practically single-handed. Then too, sweeprakes can be used "to s and grass seed to the en fodder to the ensilage support farm machinery another. rapidly becoming standg from 10' x 10' for small 12' for large tractors. ssis. Larger rakes are asily broken, and carry r the slings. ven methods of lifting devised. Some of these ical, but all have some

unty agricultural agent s a possibility that your er yard may be building ultural Engineering De-

FUNGICIDE SITUATION

The outlook for 1944 with regard to copper and sulfur fungicides is quite good. At the last report, however, the War Production Board refused to allow the increased allotment of 43 per cent increase in copper fungicides. This means that there will be on hand for distribution approximately the same amount of copper fungicides for 1944 as there was in 1943. Growers, dealers and distributors of fungicides should look ahead in ordering their supplies.

Although there is sufficient fungicide for the coming season, the problems of manpower and transportation will no doubt hinder the manufacture and distribution of these supplies. It will be necessary, therefore, to decide early on minimum fungicide requirements. Local dealers, distributors, or the usual source of supply, should be consulted early so that these materials may be ordered well in advance of the growing season. Sufficient time should be allowed dealers or distributors so that, despite transportation difficulties, the supplies will arrive on the farm before they are badly needed. By ordering early, the grower not only protects himself but also makes it possible to conserve storage space for the distributor and manufacturer and, thus, make possible a more orderly allocation of fungicides to the growers of the state. (Plant Pathology.)

FOR GOITER

the iodine-deficient re- all drinking water is or big neck is experi- cattle, or barlessness in females should receive last half of pregnancy. assum iodide crystals be druggist should be nuls of salt. For sows, 1 ounce of potassium of water. Give a tablespoon in the feed once husbandry Department.)

BY CULLING

flocks rigidly, it is posuands of feed per year ird. Culling should not ger. The boarder hen y profit. With increas- and the high price of mes a liability. (Poultrment.)

CORRECTION

Phenothiazine in the salt for sheep should be mixed 1 part phenothiazine to 10 to 14 parts salt—not equal parts as stated in this paper last month.

CO-OP CORPORATIONS MUST FILE INCOME TAX REPORT

All corporations, whether profit-type or nonprofit-type, are subject to filing of corporation income tax returns and payment of income taxes unless exemption from payments of income taxes has been obtained from the Commissioner of Internal Revenue.

Cooperative associations organized and operated for the purpose of marketing farm or horticultural products or for the purpose of purchasing farm supplies may obtain exemption from payment of income taxes if they elect to maintain their corporate form and procedure and to conduct their operations in conformance with the requirements specified in the Revenue Code and Regulations issued thereunder. Arthur Rowland, of the Agricultural Economics Extension Department of Michigan State College, has prepared a mimeographed article on, "Income Tax Exemption for Farmers' Cooperative Associations," which may be obtained by writing to the department. (Agricultural Economics Department.)

GET TOOLS IN SHAPE

It is not too early to start getting the spring tillage tools in shape. Check up on the plow shares and other repairs which may be needed. If shop work is needed on the spike-tooth and spring-tooth harrows, get them to the repair man as soon as possible. Labor and repair materials are still scarce, and the shop manager needs all possible assistance.

Do not delay the tractor check up. If overhauling is going to be needed, make arrangements as soon as possible. All shops must be kept busy all winter if our tractors are to be ready for the hard season ahead in 1944. (Agricultural Engineering Department.)

POULTRY OUTLOOK FOR 1944

The supply of feed seems to be the major factor in determining the 1944 poultry crops. Egg and poultry consumption in 1943 have been at record levels, and apparently there will be demand in 1944 for all that can be produced. On the whole, 1944 is not a year for expansion in numbers, but is a time for increasing production of eggs and meat from a small number of chicks started. This can be done by raising a higher percentage of the chicks; feeding adequately, yet avoiding every possible waste of feed; and by using sanitary measures which will hold mortality to a minimum. (Poultry Husbandry Department.)

GOOD HAY MIXTURES

Alfalfa at 6 pounds per acre with bromegrass at 5 pounds make an excellent mixture for either hay or pasture. Its requirements are (1) A clean, firm seedbed; (2) adequate lime in the soil; (3) liberal fertilization with both phosphorus and potash, (for example, 0-20-20 or 0-14-7); (4) shallow planting.

The following mixtures are suggested for farmers who are unable to get enough alfalfa seed for the acreage that ought to be seeded in 1944:

Plant	Pounds Seed Per Acre Mixture 1	Mixture 2
Alfalfa	4	2
Red Clover	4	4
Alsike	1	2
Smooth Bromegrass	5	5

(Farm Crops Department)

Contour Farming Pays Dividends

Grows More On Half As Much Land

Poorest Parts Now in Grass and They Are Producing Beef Cattle

BY E. H. DOLL

Extension Soil Conservationist
Ext. of Nebraska Col. of Agriculture

"Upland irrigation" is the moniker William Luft, a farmer six miles south of Albion, hung onto contour farming two years ago. That was after his first year's experience with conservation farming.

Now, he says, conservation farming has increased his farm's production above its former level, and the work is easier.

"I get more total crops from just about half as much cultivated land," Luft explained. "And now that the poorest parts of the farm are in grass, they are really producing beef."

URBANA, ILLINOIS — "PRODUCTION - CITIZENS

FARMERS' WARTIME CONTRIBUTION

In 1944
There Will Be a
National Need for:

1. An increase in soybeans and wheat.
2. Production of as much feed as possible after providing the needed acreage for soybeans and wheat.
3. Production of more milk.
4. An increase in egg production.
5. Adjustment in meat animal production in line with feed supplies.
6. More home-produced foods.
7. Maintenance of health and morale.

hunger in spots instead of merely annoying local scarcities.

This increase in 1943 will be chiefly in meats, poultry products, fats and oils, canned vegetables and canned fruits. Smaller increases have occurred in dairy products and in wheat. Decreases have occurred in fresh vegetables and fruits. The contribution of Illinois farmers has been particularly large in meats, poultry products and oil seeds and smaller in dairy products.

The size of the 1943 crops of feedstuffs now insures a high rate of production into 1944.

This huge supply of food will be used in 1943 approximately as follows: Three-fourths to our civilian population, one-eighth to our own armed forces, one-tenth to lend-lease for shipment to our allies, chiefly to Eng-

February, 1944
Program
The
FARM FORUM
12:00 to 12:30 Monday through Friday
and the
HOMAKERS CLUB

More Beef, Milk, Leather Needed

Cattle Grub Is Obstacle To Goals

Livestock Industry Is Asked To Increase Production by 10 Per Cent

American livestock growers have been asked to produce ten per cent more beef, milk and leather for military and civil users and nearly all—if not the entire ten per cent—can be accomplished if cattle grub damage is stopped, say animal husbandry, dairy and entomology extension specialists at the colleges of agriculture.

Extension specialists are referring to the damage caused by cattle grubs as "sabotage." How nearly right they are is revealed in the conservative estimate that cattle grubs are costing farmers of Nebraska a half million dollars a year.

Records show that an average of two pounds of beef must be trimmed from the loins and ribs of a grubby cattle carcass. This is about the weekly quota for each person.

This loss comes from nowhere except the pocket of the farmer and by the time he pays for the loss of meat and the labor of cutting out, plus the damage to the hide, the farmer is out about $2.25 on the average. Grubby cattle are docked 25 cents a hundred.

Grub Control activities

Four Nebraska counties, Dawson, Scotts Bluff, Cass and Cuming, were selected in mid-December for intensive cattle grub control activities in 1944, the results in these counties to be used as a basis for planning future control work in the state. Other counties have taken up control campaigns since that time.

The cattle grub control campaign got up momentum in Dawson county last Jan. 11 when Don B. Whelan, extension entomologist and member of the cattle grub state committee, and Ed Janike, extension livestockman, gave an eradication demonstration at the sales barn in Lexington. The demonstration was repeated at Gothenburg a few days later.

Before the Lexington and Gothenburg meetings were held a planning committee consisting of Dawson county farmers, feeders and veterinarians met with County Agent L. K. Johansen and Janike and made arrangements to put the campaign into operation. Dawson county was the first of the four key counties to swing into action.

The meeting of the committee brought out some interesting experiences with cattle grubs. One farmer related that several carloads of cattle had been shipped to a packer over a period of time. Early shipments brought near-top price but successive shipments were docked 25 cents a hundred because of grub damage. Evidence of damage to

(Turn to Page 6, Col. 2)

MONTGOMERY WARD

Order Chicks Now!

FROM MONTGOMERY WARD

8

EXTENSION FOLDER 85 DECEMBER 1943

LOOKING INTO 1944

"Farmers of Michigan know the importance of food in the war effort. You know what your farms are capable of producing if all production factors are utilized to capacity. If this folder can help you in your planning for 1944 it will have served its purpose."—
R. J. Baldwin, Di
Service, Michiga

Prepared by C. O. Mar, E

MICHIGAN
EXTENSION SE
Michigan State College

FOOD FOR FORTY-FOUR

Indiana's Production Goals for 1944

PRODUCT	1944 GOAL	Percentage of Expected 1943
Corn	4,500,000 acres	103
Soybeans for beans	1,600,000 acres	110
Potatoes, Irish	52,000 acres	100
Sugar Beets	9,000 acres	225
Tobacco (harvested)	12,000 acres	120
Truck vegetables	212,000 acres	100
Oats	1,350,000 acres	88
Barley	100,000 acres	102
Wheat	1,300,000 acres	130
Rye	100,000 acres	77
Hemp	11,000 acres	135
Tame Hay	1,850,000 acres	97
Seed crops	403,000 acres	214
Milk	3,500,000,000 pounds	99
Milk cows (average for year)	814,000	101
Eggs	165,000,000 dozen	99
Chickens raised	36,000,000	98
Chickens, broilers	5,031,000	80
Turkeys	412,000	91
Sows (spring farrow)	600,000	87
Sows (fall farrow)	530,000	79

THESE goals are the part that Indiana is being asked to produce as our portion of the national food production for 1944. The production represented by these goals reaches the limit of the available feed and the land suitable for cultivation. With the exception of some shifts in crops, further production increases must be obtained through better farming practices, such as increased use of fertilizers, better soil management, the use of higher yielding varieties of crops, control of insects and diseases of plants and animals, and more efficient feeding practices.

Following this assumption, the Purdue Agricultural Extension Service makes the following recommendations on soil management, crop varieties, and the production of milk, pork, eggs, and gardens.

Purdue University
Department of Agricultural Extension
cooperating with
Agricultural Experiment Station
Lafayette, Indiana

Special Circular A-70 February 1944

More Food in 1944

Methods Will

More Food

and the United States
ting. R. J. Baldwin,
tributed is further-
y 8 and June 30, 1914,

The TRI-STATE FARM and HOME PROGRAM

JANUARY
FEBRUARY
MARCH
1944

WWVA
1170
ON RADIO DIALS
At 6:45 :

"Food Fights for Victory"

How Do I Rate?

Keep For Future Reference

		My Score Yes	No
CROPS	Planned to include my share of the goals.	☐	☐
MACHINERY	Machines are checked, repaired, ready for work.	☐	☐
OATS	Will sow one of new varieties; have seed on hand cleaned and tested for germination.	☐	☐
SOYBEANS	Have enough seed of adapted varieties. Tested for germination. Will inoculate.	☐	☐
YOUNG PIGS	Will scrub out farrowing pen, use guard rails, provide extra feed, raise on clean ground.	☐	☐
MARKET HOGS	Feeding protein, including alfalfa, also mineral—will provide all-summer pasture.	☐	☐
MILK COWS	Feeding legume hay, heavy milkers get extra grain, have all-season pasture.	☐	☐
FEEDING CATTLE	Feeding for pounds instead of finish; making maximum use of roughage.	☐	☐
POULTRY	House is not overcrowded, is clean and comfortable; feed egg mash year round; will raise young chicks on clean ground.	☐	☐
GARDEN	Plot fertilized, seed on hand. Will provide vegetables for year-round use.	☐	☐
LABOR	Is planned to do the job and do it well; will cooperate with neighbors to make best use of machinery, fewer and labor.	☐	☐
SHORTCUTS	Have considered all possibilities for saving labor.	Yes	NO

TOTAL NUMBER OF ANSWERS

10 to 12 yes answers—Excellent.
9 or 10 yes answers—Good.
6 no answers—"Looks like I'm missing something."

FARMER'S PLEDGE: "As long as American
living on the battle front, I hereby
on the home front."

PURDUE NEWS SERVICE (Ind.)

This is an example of a syndicated service we prepare and distribute each day to 20 radio stations, including a few large clear channel stations bordering the state, and to 14 Indiana county agricultural who have radio programs r own on local stations.

is service has been at least one food on in 1944 story per t least 120 stories t. 1, 1943. It is d that 2,000,000 persons s service daily.

ooOoo

NA FARM NEWS

arm News. Facts and items of interest from xtension Service and Experiment Station, in al agents and the United States Department

iday, December 17, 1943)

ers growing war crops may find they're plowing ward better living after the war. In other changes farmers are now making to meet our will fit right in with the after-the-war plans to provide enough milk for the 140 million this country five years from now, more of our dairy farming -- especially farmers in the t.

And farmers will have to grow more grain and hay to feed more cows. hy of our people, the nutrition experts, say, simply don't eat enough een and yellow vegetables. So, it now seems likely that truck farmers l over the country may have to put more land in vitamin-rich vegetables give our folks the kind of diet they need.

Compared to the five years before the war, the better-food-men timate farmers may need to raise probably about 10 per cent more hogs, d sheep, and lambs to give all our people as much meat as they need. d fruit growers, and growers of many other crops, will have to grow re, too.

Remember, these are not mere guesses as to what farmers will need to ow -- they are careful estimates of what food it will take to put all r people on a good diet. True, we lack a lot of knowing all there is to ow about food and how to use it. But when we add up the food value of l the food that farmers ordinarily grow -- and then divide the total ong the number of people in the country, we find farmers simply don't ise enough food to give all our own people the amount and kind of food ey need. And we won't do it tomorrow or next season. But with the help

OREGON FOOD-FOR-VICTORY OBJECTIVES

A War Food Production Handbook
for Community and Neighborhood Leaders

OREGON HAS A DEFINITELY REQUESTED PART TO PLAY IN PROVIDING FOR THE NATION'S WAR FOOD NEEDS

MILK: All possible production

MEAT: Increased marketings

EGGS: Current volume

TURKEYS: Small reduction

FRUIT AND VEGETABLES FOR PROCESSING: About current levels

HAY: Seven per cent acreage increase

FEED GRAINS: About current levels

CLOVER AND ALFALFA SEED: Heavy increase

VICTORY GARDENS: Increase

Oregon State System of Higher Education
Federal Cooperative Extension Service
Oregon State College
Corvallis

Extension Bulletin 632 February 1944

Ohio Food Production Handbook 1944

For Use in District U.S.D.A. War Board
Training Conferences and County
Training Conferences

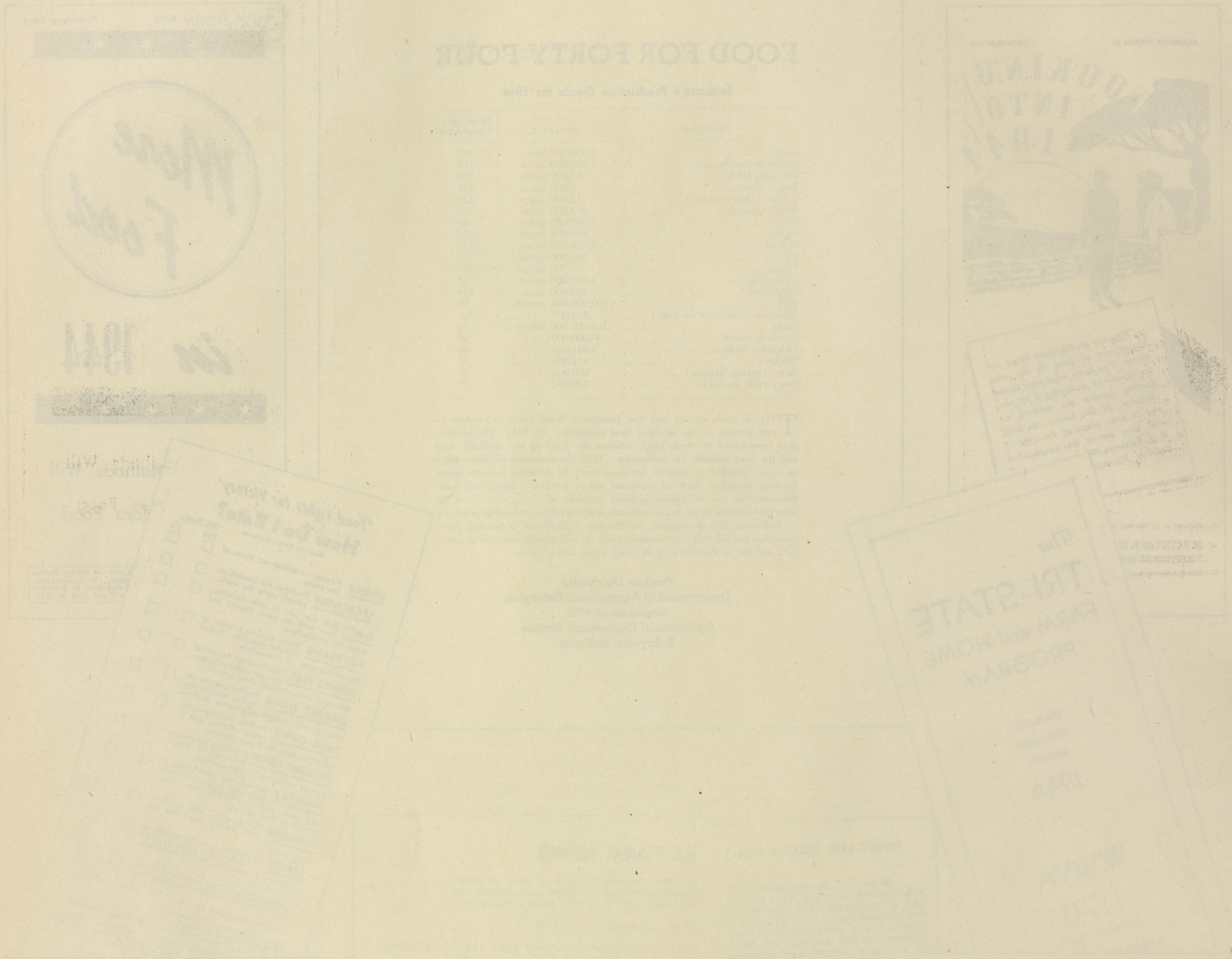
* In spite of handicaps of inexperienced labor, unfavorable weather, shortages in machinery, equipment, and supplies, and lack of certain feeds, Ohio farmers came through on the food line with a good production record in 1943.
* The farmer and his family worked long hours. Farmers helped each other. They made many necessary adjustments to save labor. They let many things go undone.
* Ohio farmers have demonstrated that maximum production of the products needed is Agriculture's contribution to the winning of the war.

COMMITTEE

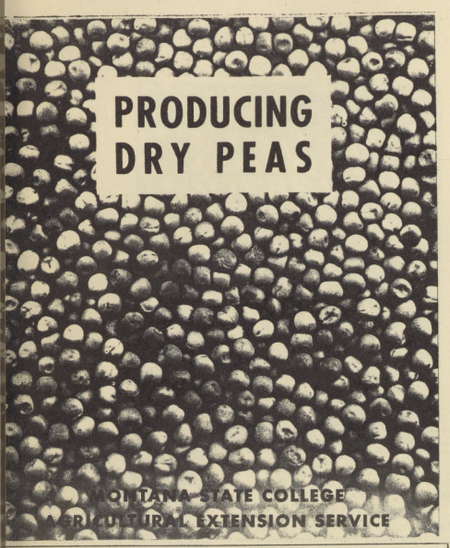
HARRY A. DONOHOO, *Chairman*

B. B. SPOHN — OTTO C. CROY
RALPH HOWARD — A. L. SORENSON
HORTON B. ALGER — DALE C. WILLIAMS

THE OHIO STATE UNIVERSITY, COOPERATING WITH THE U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE, H. C. RAMSOWER, *Director*, Columbus, Ohio
Printed and distributed in furtherance of Acts of May 8 and June 30, 1914



CASH CROPS



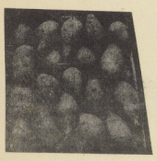
Sweet Potatoes

For the Late Market

by

LYLE BROWN, Extension Horticulturist

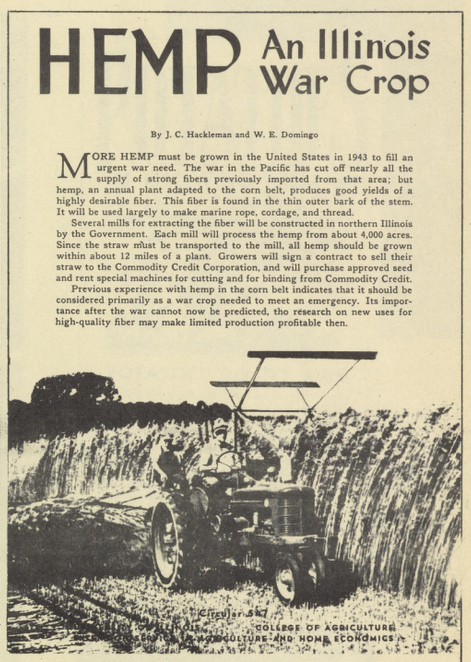
Such advances have been made in recent years in handling sweet potatoes intended for market that methods quite acceptable twenty years ago are today unsatisfactory. To compete with potatoes now found on discriminating markets a product must be uniform in color, shape, and size, free of all bruises, diseases, or blemishes, and carefully packed in attractive packages. To produce and deliver such a product requires careful attention to every detail from the selection of the soil, the variety, and strain of potato through every step to the graded and packed product.



Varieties: For commercial purposes the Louisiana Copper Skin type Porto Rico is recommended. The consuming public has learned to prefer it to other types. Unless seed of this stock has been introduced locally, you should advise with your county agent relative to securing this strain of seed for planting. It is highly desirable that growers maintain a clean, disease-free, uniform seed stock which should be grown on clean land each year and possibly stored separately from the crop going to market.

Seed Selection and Treatment: Only clean seed should be bedded. When selecting seed, all potatoes showing any evidence

The Alabama Polytechnic Institute
EXTENSION SERVICE
P. O. DAVIS, Director AUBURN, ALA.
MAY, 1940 (Revised, May, 1943) CIRCULAR 203
Cooperative Extension Work in Agriculture and Home Economics, the Alabama Polytechnic Institute and the United States Department of Agriculture Cooperating — Acts of May Eighth and June Thirtieth, Nineteen Hundred Fourteen.



EXTENSION BULLETIN 49 (REVISED) APRIL 1943

BETTER POTATOES FOR MICHIGAN

By H. C. MOORE

MICHIGAN STATE COLLEGE :: EXTENSION DIVISION
EAST LANSING

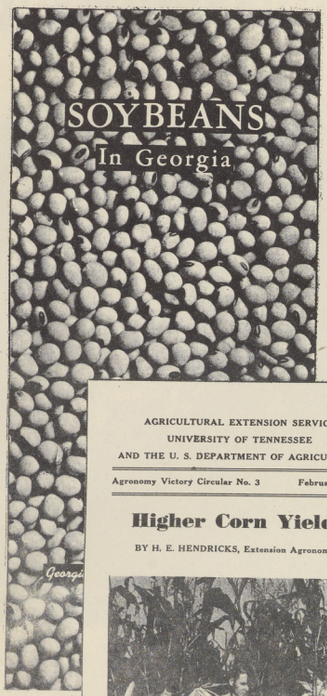
Michigan State College of Agriculture and Applied Science and U. S. Dept. of Agriculture cooperating, R. J. Baldwin, Director Extension Division, Michigan State College, East Lansing. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

EXTENSION BULLETIN 67 (Revised) JULY 1938

PRODUCING SUGAR BEETS

BY G. F. WENNER

MICHIGAN STATE COLLEGE :: EXTENSION DIVIS 10



Play safe with

CERTIFIED SEED

Wisconsin certified seed is

—produced directly from new foundation stocks supplied each year by the Wisconsin College of Agriculture

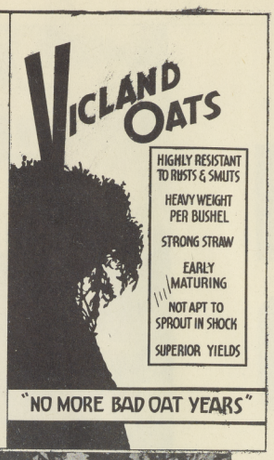
—supervised carefully by field inspections and laboratory tests to insure a high degree of purity and good germination

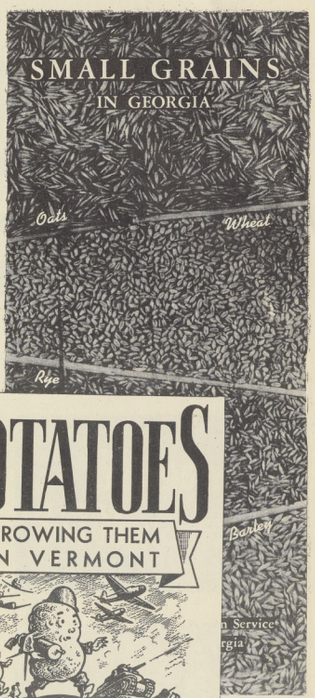
—officially tagged and sealed with the CERTIFIED SEED label

These precautions are taken to safeguard the identity of Vicland seed oats and to maintain high quality.

For further information regarding Vicland oats and seed sources write

Wisconsin Agricultural Experiment Association
Agronomy Building, Madison, Wisconsin





AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE
AND THE U. S. DEPARTMENT OF AGRICULTURE

Agronomy Victory Circular No. 3 — February, 1943

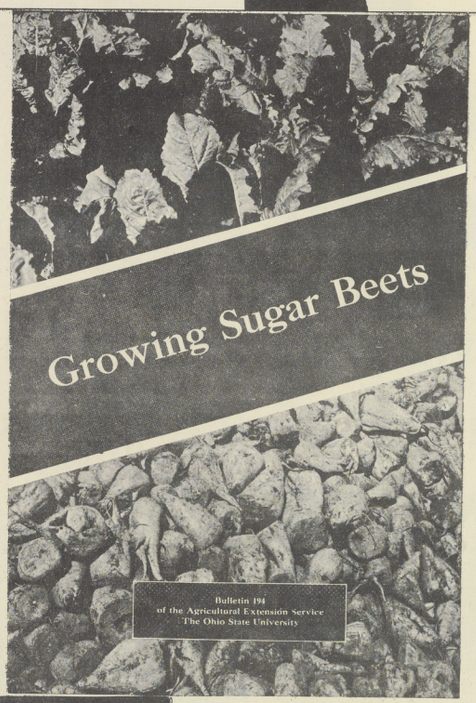
Higher Corn Yields

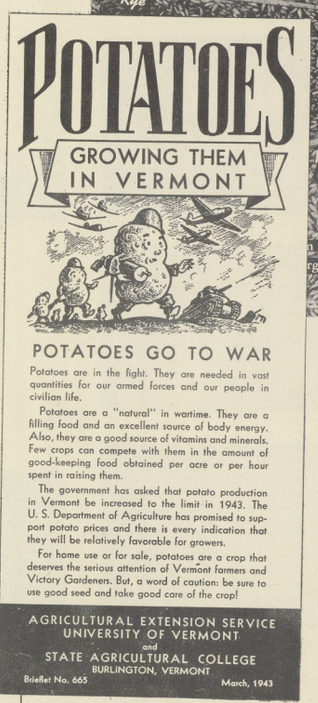
BY H. E. HENDRICKS, Extension Agronomist

One of The Paymaster Hybrids

Nearly every farmer in this part of the country grows corn. It is the most important crop in Tennessee. Nearly three times as many acres are planted to corn, taking the State as a whole, as all other cultivated crops combined. Under the conditions which corn is grown, no other crop, at least no other grain crop, will produce as many feed units per acre for livestock, as corn.

Corn is the foundation of our "Food for Victory" production program. During this emergency the amount of pork, especially, that we will produce will depend directly upon the supply of corn, and its importance in





POTATOES GO TO WAR

Potatoes are in the fight. They are needed in vast quantities for our armed forces and our people in civilian life.

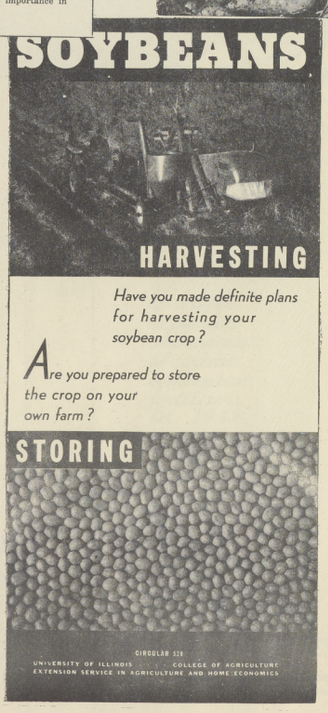
Potatoes are a "natural" in wartime. They are a filling food and an excellent source of body energy. Also, they are a good source of vitamins and minerals. Few crops can compete with them in the amount of good-keeping food obtained per acre or per hour spent in raising them.

The government has asked that potato production in Vermont be increased to the limit in 1943. The U. S. Department of Agriculture has promised to support potato prices and there is every indication that they will be relatively favorable for growers.

For home use or for sale, potatoes are a crop that deserves the serious attention of Vermont farmers and Victory Gardeners. But, a word of caution: be sure to use good seed and take good care of the crop!

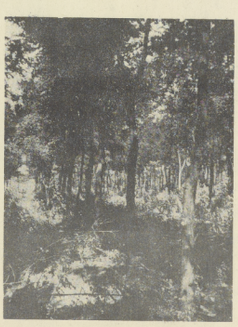
AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF VERMONT
and
STATE AGRICULTURAL COLLEGE
BURLINGTON, VERMONT

Bulletin No. 665 — March, 1943

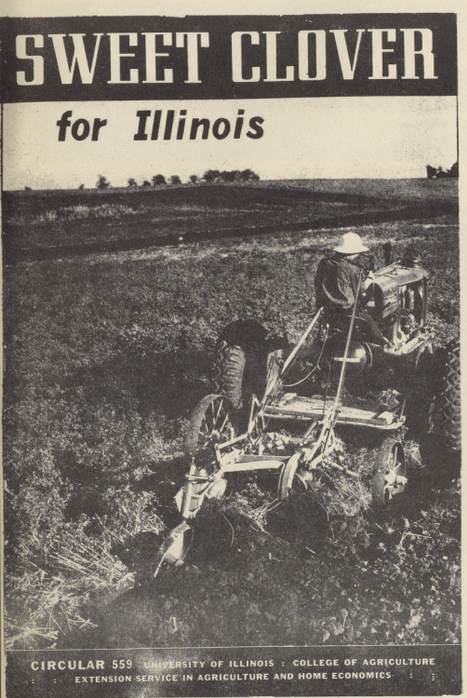


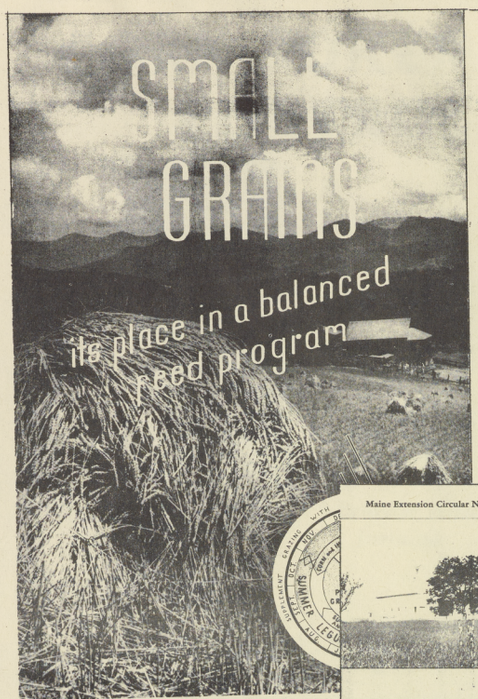
—OP-86

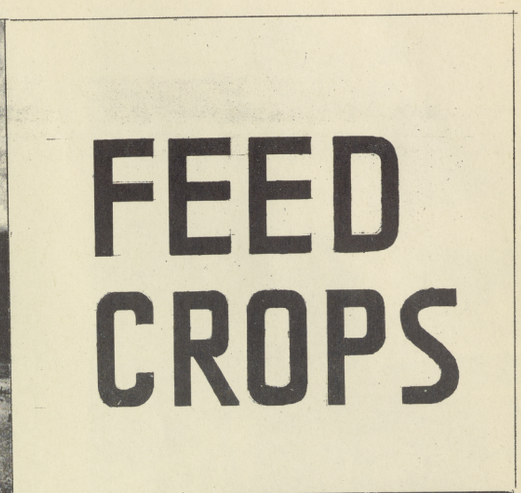
Trees for Victory

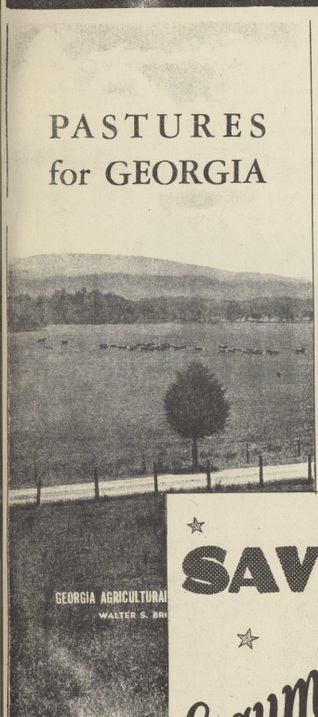


COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Oklahoma
Bizzell Brown, *Director*, Stillwater
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATING

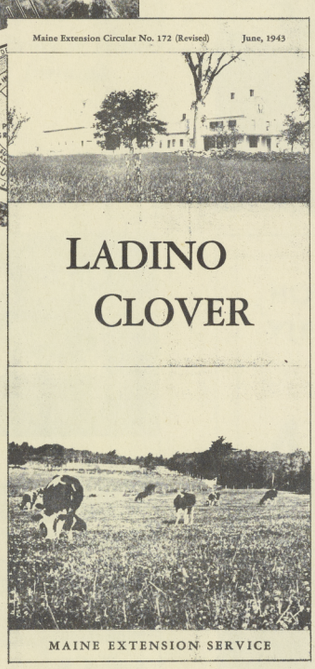

SWEET CLOVER
for Illinois
CIRCULAR 559 : UNIVERSITY OF ILLINOIS : COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS

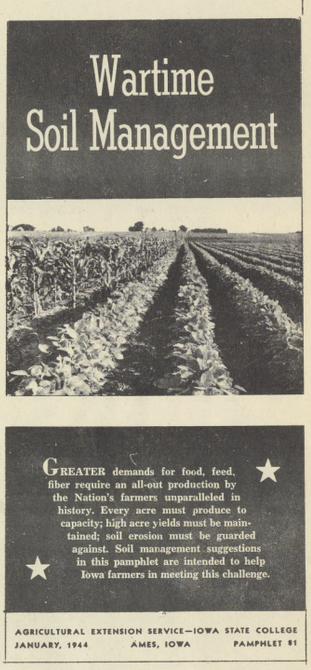

SMALL GRAINS
its place in a balanced feed program

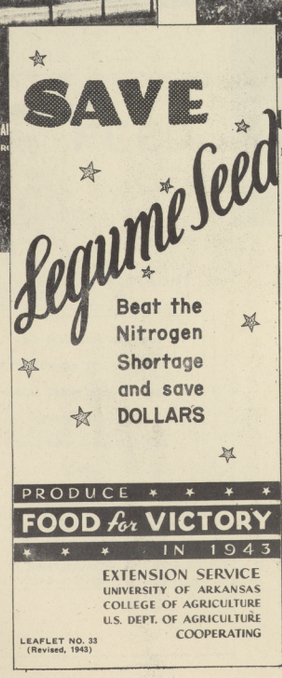

FEED CROPS

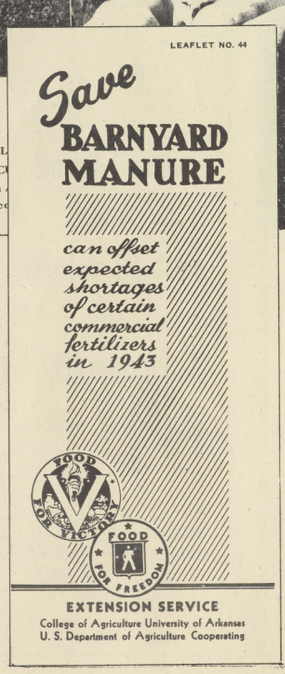

PASTURES
for GEORGIA
GEORGIA AGRICULTURAL

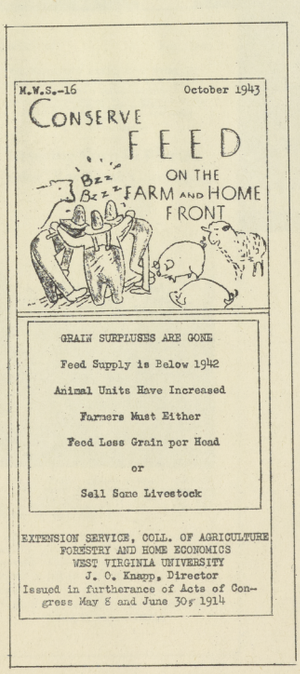
LESPEDEZA
Its Place
in Illinois
Agriculture

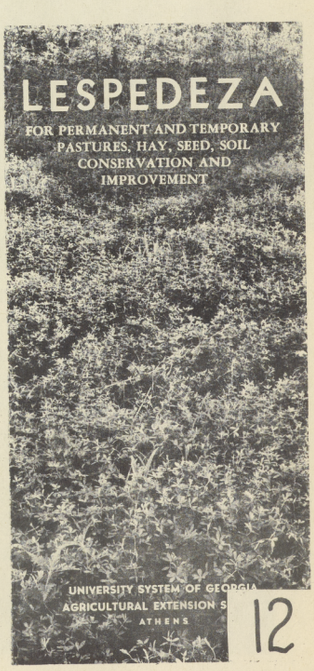

Maine Extension Circular No. 172 (Revised) June, 1943
LADINO CLOVER
MAINE EXTENSION SERVICE

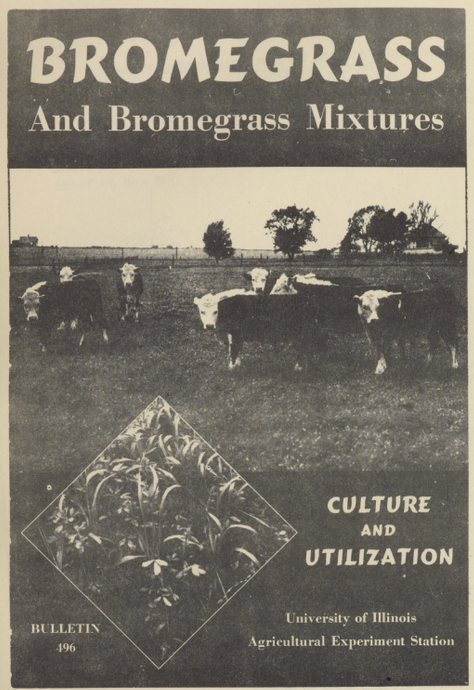

Wartime Soil Management
GREATER demands for food, feed, fiber require an all-out production by the Nation's farmers unparalleled in history. Every acre must produce to capacity; high acre yields must be maintained; soil erosion must be guarded against. Soil management suggestions in this pamphlet are intended to help Iowa farmers in meeting this challenge.
AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
JANUARY, 1944 AMES, IOWA PAMPHLET 81

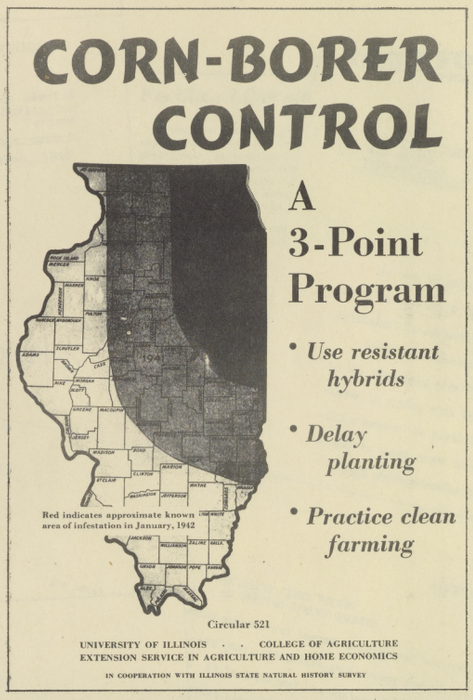

SAVE
Legume Seed
Beat the Nitrogen Shortage and save DOLLARS
PRODUCE
FOOD for VICTORY
IN 1943
EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING
LEAFLET NO. 33
(Revised, 1943)

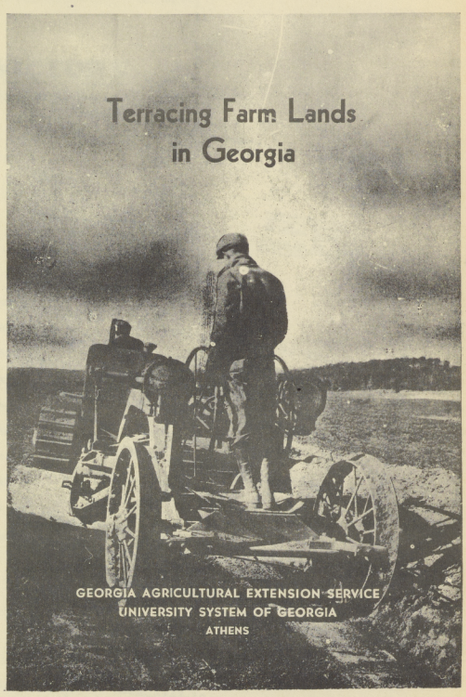

LEAFLET NO. 44
Save
BARNYARD MANURE
can offset expected shortages of certain commercial fertilizers in 1943
FOOD FOR VICTORY
FOOD FOR FREEDOM
EXTENSION SERVICE
College of Agriculture University of Arkansas
U. S. Department of Agriculture Cooperating

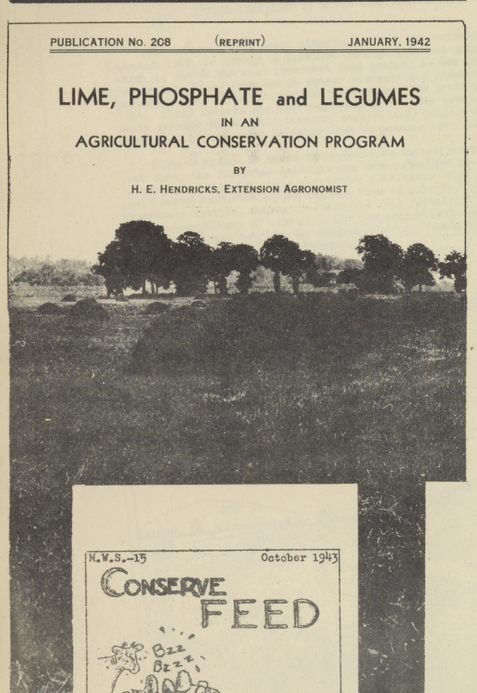

M.W.S.-16 October 1943
CONSERVE FEED ON THE FARM AND HOME FRONT
GRAIN SURPLUSES ARE GONE
Feed Supply is Below 1942
Animal Units Have Increased
Farmers Must Either
Feed Less Grain per Head
or
Sell Some Livestock
EXTENSION SERVICE, COLL. OF AGRICULTURE
FORESTRY AND HOME ECONOMICS
WEST VIRGINIA UNIVERSITY
J. O. Knapp, Director
Issued in furtherance of Acts of Congress May 8 and June 30, 1914

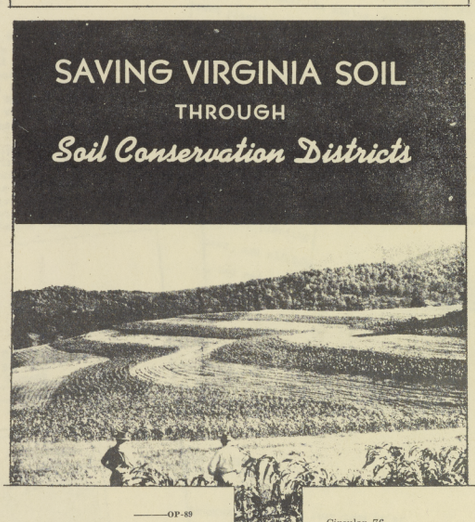

LESPEDEZA
FOR PERMANENT AND TEMPORARY PASTURES, HAY, SEED, SOIL CONSERVATION AND IMPROVEMENT
UNIVERSITY SYSTEM OF GEORGIA
AGRICULTURAL EXTENSION S
ATHENS

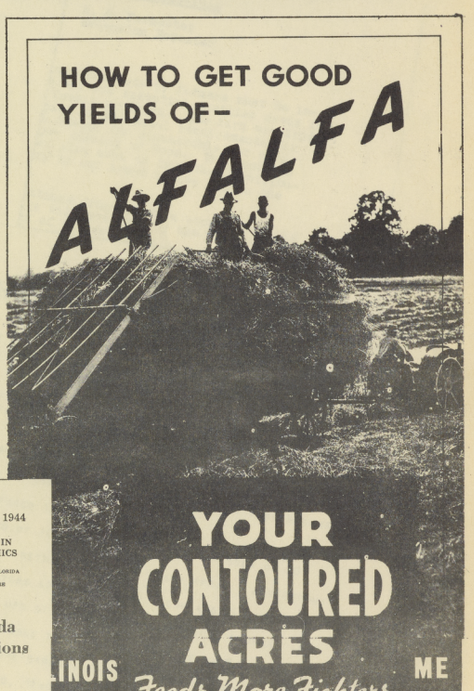

BROMEGRASS
And Bromegrass Mixtures
CULTURE
AND
UTILIZATION
BULLETIN
496
University of Illinois
Agricultural Experiment Station

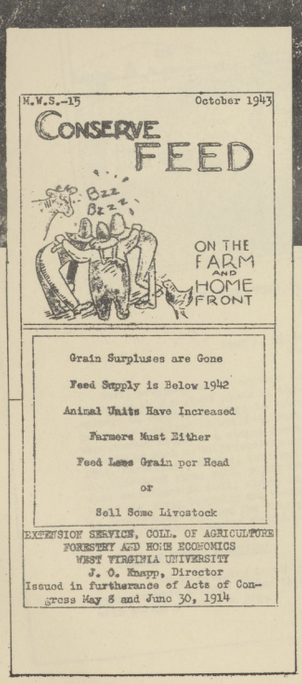

CORN-BORER
CONTROL
A
3-Point
Program
• Use resistant hybrids
• Delay planting
• Practice clean farming
Red indicates approximate known area of infestation in January, 1942
Circular 521
UNIVERSITY OF ILLINOIS . . COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
IN COOPERATION WITH ILLINOIS STATE NATURAL HISTORY SURVEY


Terracing Farm Lands
in Georgia
GEORGIA AGRICULTURAL EXTENSION SERVICE
UNIVERSITY SYSTEM OF GEORGIA
ATHENS


PUBLICATION No. 208 (REPRINT) JANUARY, 1942
LIME, PHOSPHATE and LEGUMES
IN AN
AGRICULTURAL CONSERVATION PROGRAM
BY
H. E. HENDRICKS, EXTENSION AGRONOMIST


SAVING VIRGINIA SOIL
THROUGH
Soil Conservation Districts


HOW TO GET GOOD
YIELDS OF—
ALFALFA


N.W.S.-15 October 1943
CONSERVE FEED
Bzz Bzz
ON THE FARM AND HOME FRONT
Grain Surpluses are Gone
Feed Supply is Below 1942
Animal Units Have Increased
Farmers Must Either
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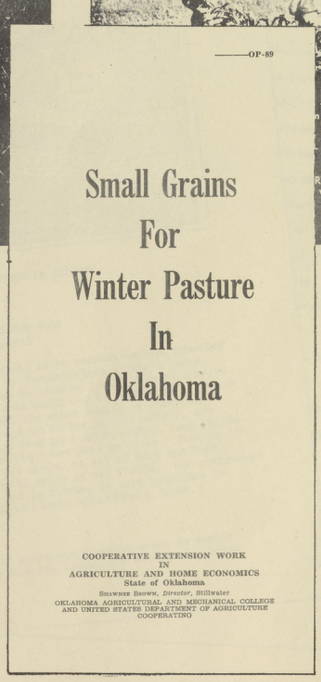
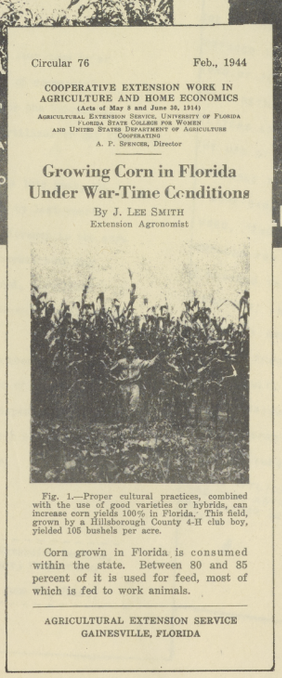
EXTENSION SERVICE, COLL. OF AGRICULTURE
FORESTRY AND HOME ECONOMICS
WEST VIRGINIA UNIVERSITY
J. O. Knapp, Director
Issued in furtherance of Acts of Congress May 8 and June 30, 1914


—OP-89
Small Grains
For
Winter Pasture
In
Oklahoma
COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Oklahoma
Bulletin No. B-289


Circular 76 Feb., 1944
COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS
(Acts of May 8 and June 30, 1914)
Growing Corn in Florida
Under War-Time Conditions
By J. Lee Smith
Extension Agronomist
Fig. 1.—Proper cultural practices, combined with the use of good varieties or hybrids, can increase corn yields 100% in Florida. This field, grown by a Hillsborough County 4-H club boy, yielded 105 bushels per acre.
Corn grown in Florida is consumed within the state. Between 80 and 85 percent of it is used for feed, most of which is fed to work animals.
AGRICULTURAL EXTENSION SERVICE
GAINESVILLE, FLORIDA

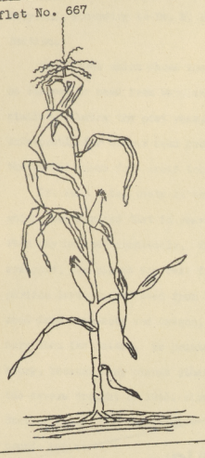
YOUR
CONTOURED
ACRES
Feeds More Fighters
AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
FEBRUARY, 1944 AMES, IOWA PAMPHLET 84

13

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF VERMONT
J. E. Carrigan, Director
(Acts of May 8 and June 30, 1914)
College of Agriculture, University of Vermont, and U.S.Department of Agriculture, Cooperating
Extension Service
Burlington
Vermont

March, 1943

Brieflet No. 667



BETTER SILAGE CORN FOR VERM

Fertilize Liberall

To produce the food and
ery being what it is, ever
practices. He must plant
and use good cultural met
Many farmers know that th
combined with other good
of corn and small grain

This year there is am
pared with the sale val

Virginia farmers sho
spring than they have
tilizer, such as 4-12-
It will give profitab

Place Orders at Once

There are many rea
pring fertilizer ne

The tremendous st
nyone to get promp
pply. If farmers
eir fertilizer.

Advance orders
" the manufact

FOOD FOR VICTORY

Virginia Agricultural
Division

News of the Farm and Home

PRESS SERVICE

Release Week of January 10, 1944

YIELDS OF SMALL GRAINS INCREASED BY TOP-DRESSING

One way to increase feed production and provide additional bedding for live-stock in 1944 is by top-dressing small grains in the spring, says John W. Magruder, specialist in agronomy for the University of Maryland extension service.

Results of experimental and farm tests in all sections of the state, according to Mr. Magruder, show that top-dressing wheat and barley about the time growth starts in spring with fertilizer containing 20 pounds of readily available nitrogen will increase the yield from 5 to 10 bushels per acre on 75 percent of the land seeded to these crops in Maryland.

Soil which normally produces less than 30 bushels of wheat or 40 bushels of
ally respond profitably to nitrogen top-dressing.
se lodging of the grain. Under

The usual

SPECIALIST GIVES POINTS #440214
ON SEEDING SPRING GRASSES

eding grasses and legumes in Maryland are spring, late
. Mag der, specialist in agronomy for the University
. It is important, he states, that they be seeded
erent plants vary with respect to most desirable
ly, and the seed cost.
espedeza and lespedeza sericea as legumes which
er or early spring. Grasses and legumes that
d at this time of year, but which may also be
rass, red clover, ladino clover, sweet clover,
othy and tall meadow oat grass generally are
ng.
e summer planting,
cess, are alfalfa
, and red top.

ROGRAM FOR 1943-1944

R. B. Parmenter
Extension Forester

est products by farmers must be in-
war and essential civilian needs for
forest products. The farm woodland
part of the total requirements for
s needed for innumerable war uses,
per packing of food. The American
en also make an important contribu-
ry to our armed forces and to the

ttings from the farm woodland should
gs will not destroy the growing stock
s of the woodland.

HYBRID VARIETIES OF FIELD CORN FOR MASSACHUSETTS

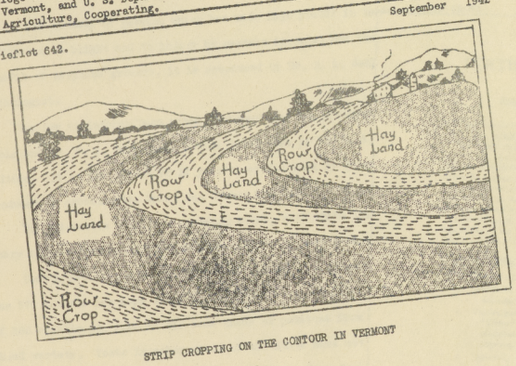
The critical feed grain situation, which has existed in the Northeast through 1943, is likely to continue through 1944 and probably longer. Corn, which is one of the most important feed grains, is now one of the most difficult to obtain. Since corn can be rather successfully grown in most sections of Massachusetts, it is likely that the acreages for grain will be expended in 1944. Those farmers who have regularly grown some corn may want to increase their acreage while other farmers, particularly poultry men who have never grown corn before, will be interested in growing corn for their flock.

Since a number of these farmers may be interested in planting hybrid seed corn, the following material has been assembled to assist them in selecting hybrids for their particular condition. This material is based on yield tests conducted at the College Farm at Amherst, by the Agricultural Experiment Station, Amherst. Since the soil fertility, moisture, and the climatic conditions of elevation and temperature will effect the yield and maturity of these hybrids, we suggest that the county agents use some caution in recommending them to the farmers.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, STATE OF VERMONT
J. E. Carrigan, Director
(Acts of May 8 and June 30, 1914)
College of Agriculture, University of Vermont, and U. S. Department of Agriculture, Cooperating.
Extension Service
Burlington
Vermont

September 1942

Brieflet 642.



STRIP CROPPING ON THE CONTOUR IN VERMONT

By

Paul R. Miller, Extension Soil Conservationist

Strip cropping on the contour (on the level) is an erosion control practice which has an important place on those farms in Vermont where a fairly large acreage of cultivated crops is annually grown on sloping land. Several hundred years are required to build an inch of top soil which may be washed away from an unprotected slope in a single downpour. Soil and water losses on some slopes are cut as much as 50 percent by growing crops in strips on the contour, and lime, fertilizer, manure, seed and labor are used more efficiently. Because of are increased since soil, plant food and moisture are held in place. wide variations in soil, slope, rainfall, and crops, no set of hard and fast rules for strip cropping can be made that will apply to all fields. For assistance in determining the need for this practice and in putting it into operation on specific fields, farmers should contact their County Agricultural Agent.

What is strip cropping?

Strip cropping is the growing of row crops or grain crops in narrow strips across a slope rather than up and down the slope, and alternating those with strips planted to hay.

SERVICE

Release Week of January 24, 1944

ZER ON HAY
ACTICE THIS YEAR

increased three to four tons by an
e cost of one ton of commercial
ist in agronomy for the University
conomy to use fertilizer on hay this
markets.
y Maryland farms this year, Mr.
clover seedings by last year's
40 pounds of nitrogen to the acre
ll greatly increase both hay
nt. Well cured, fertilized
perior to late-cut, poorly cured

d timothy in about equal pro-
to the acre of 4-12-4 or
ume hays respond best to super-
igh in potash are recommended
regularly.

nomics, Extension Service,
griculture, Cooperating
y 8 and June 30, 1914.)

COOPERATIVE AGRICULTURAL EXTENSION WORK
UNITED STATES DEPARTMENT OF AGRICULTURE AND THE
COLLEGE OF AGRICULTURE, UNIVERSITY OF TENNESSEE
COOPERATING
AGRICULTURAL EXTENSION SERVICE

TENNESSEE FARM AND HOME NEWS

A. J. SIMS, Extension Editor

JANUARY 24, 1944

FOR RELEASE

TOP-DRESS SMALL GRAIN WITH NITRATES

R FERTILIZER NOW AND APPLY BETWEEN
FEBRUARY 1 AND APRIL 1

SMALL GRAIN IS URGED BY H. E. HENDRICKS, EXTENSION
GE OF AGRICULTURE, AS THE EARLIEST POSSIBLE WAY
ORTAGES IN 1944.

IONS OF 100 POUNDS OF NITRATE OF SODA OR 50
RATE BETWEEN FEBRUARY 1 AND APRIL 1 ARE RECOM-
ILIZERS ARE RELATIVELY CHEAP AND PLENTIFUL AND
THE USE OF THESE MATERIALS SHOULD PRODUCE IS
ASONABLE TO EXPECT AN AVERAGE OF 5-6 BUSHELS
S MORE BARLEY; AND 12-15 BUSHELS MORE OATS PER
USED, HENDRICKS SAID.

MMENDED FOR ALL WHEAT LAND WHICH NORMALLY
O BUSHELS TO THE ACRE; BARLEY ON LAND WHICH
BUSHELS; AND OATS WHERE THE EXPECTATION IS
TOO HEAVY APPLICATIONS ARE MADE ON STRONGER
FICIT OF PHOSPHORUS, POTASH, AND OTHER
MAY RESULT.

USED STRAIGHT AS A TOP-DRESSING. AMMONIUM
ERY SATISFACTORY TO USE IN COOL, DRY
WITH DRY LIMESTONE AS A CARRIER.

EDIATE APPLICATION TO THEIR FERTILIZER
AND TAKE ADVANTAGE OF THE SLACK LABOR
FOR FURTHER DETAILS ON TOP-DRESSING SMALL
AGENT.

#

14

ADAPTED RED CLOVER SEED
SUPPLY IS SHORT THIS Y

There is a marked shortage this year of red cl
Maryland, according to Dr. W. B. Kemp, acting dire
Station.

The clover which shows the best record for
he states, is seed from Maryland or from other s
similar. During the past year, weather conditi
unfavorable for clover seed production. As a
the market comes from areas too far north to

Dr. Kemp cites tests at the Maryland Sta
which demonstrated that in years of serious
seed may be lost completely. These tests s
are good, the yields are best from seed th
parison last year of seed from Virginia, T
seed from Minnesota and Oregon, the forme
acre than the latter. He points out, to
story, because many plants other than re
the severe drought of 1943, clover seed
Station plots, the adapted lot
pounds per a

#440151

News of the
Farm and Home

PRESS SERVICE

Release Week of
January 5, 1944

BY-PRODUCTS CAN BE USED
TO INCREASE FEED SUPPLY

Wise use of by-products produced on the farm can be made to aid greatly in adding to the home-grown feed supply, says John W. Magruder, specialist in agronomy for the University of Maryland extension service.

For instance, he points out, winter top dressing of wheat
five spreader loads of manure per acre and a correspondingly l
on land to be planted to corn in 1944 will produce a three-fol
Maryland soils. The small grain yields will generally be incr
per acre, better stands of legumes are secured, and the manure
dressing to the small grain is generally fully reflected in th
after the sod is plowed.

Such a coating
provides
urface soil moisture,
seedlings from dryi
n easy reach of t
peratures, prot
roducing les
ularly for
gume stan
m land
to lo

#440214

SELECT OR ORDER SEED NOW
FOR THE 1944 POTATO CROP

Dr. R. A. Jehle, state plant pathologist, advises potato growers to select
now for their 1944 crop.
atiss, Irish Cobbler, Chippewa, or Katahdin, is satisfac-
states. For the grower who wants early ma-
ut, if it is desirable to prolong the digging
planted. Chippewa matures a week to 10 days
ahdin matures a week to 10 days later than

Red, Potomac, Sequoia and Sebago are recommended.
ties except Dakota Red must be kept in cold storage
l they are planted, according to Dr. Jehle, unless the
otherwise, poor stands are likely to result. For plant-
000 feet, Potomac, Sequoia and Rural varieties are
rged to spray or dust their vines thoroughly
that variety are extremely
unsprayed fields

INDIANA FARM NEWS

Here is the latest Indiana Farm News. Facts and items of interest from Purdue University's Agricultural Extension Service and Experiment Station, in cooperation with county agricultural agents and the United States Department of Agriculture.

(For use Firday, January 7, 1944)

DEVELOPMENTS ON THE AGRICULTURAL FRONT

Indiana tobacco growers sold 1,687,136 pounds of burley for $773,932.86 during the period from Dec. 7 to 22, 1943. This according to market reports received by the Indiana Agricultural Conservation committee. The average price per pound received by the growers was 45.9 nts. The pounds sold represented more than 18 per cent of the total 1943 burley production. -*-*-*-The Bureau of Agricultural Economics says that white corn accounted for approximately production of all corn in 1942 and 1943. This was
als in 1942 and 457,000,000 bushels
tion for popularity

WHEAT FOR LIVESTOCK

Farmers all over the country are being urged to feed more wheat to all kinds of livestock:

1. To make room for the new crop.
2. To conserve the corn supply which is being used faster than produced.
3. Because it will be more practical to increase wheat than corn acreage if war conditions require it.
4. Because the price of wheat is favorable compared with similar feeds.

We use in this country a total of about 670 million bushels of wheat yearly, including both feed and seed. For over fifty years the wheat yield has not fallen below 500 million bushels. Even during some adverse years we produced nearly all our domestic need. The forecast for the 1942 crop indicates that we will exceed our domestic need by over 100 million bushels. When it is realized that there was a carry-over of 755 million bushels when the 1942 crop began to be harvested it became evident that storage facilities would be taxed to make room for the new crop.

Although we are producing wheat faster than we are using it, the reverse is true regarding corn. This becomes significant to livestock feeders the country over; for with millions of bushels of wheat, not now needed as human food, and thousands of bushels piled on the ground for lack of storage, livestock farmers are urged to make greater use of wheat and conserve the corn supply.

It is estimated that this year 150 million bushels more corn will be used than produced and next year if wheat is not substituted, 200 million bushels more corn will be used than produced. At that rate the Iver Normal Granary will soon be depleted of its supply of corn.

In the past most of the wheat in the
for the manufacture of
amount for

News of the
Farm and Home

PRESS SERVICE

Release Week of
November 15,1943

NEW VARIETY OF POTATO
IS CHRISTENED "POTOMAC"

A new variety of potato, which has made high yields in tests and has shown resistance to blight and to injury by certain insects, has bee
benefit of Maryland growers, it is announced by Dr. R. A. Jehl
Pathologist.

The new variety has been named "Potomac" and was produced
Jehle and Dr. F. J. Stevenson, Senior Geneticist of the U. S.
culture. It is the result of 12 year's careful work by these
produced by crossing the Rural New Yorker and Katahdin varie

The Potomac is described as being round, with white ski
inary tests indicate that its cooking quality is very good a

Over a seven-year period in Garrett County, the averag
was 370 bushels per acre of U. S. No. 1 potatoes, compared
of 285 bushels per acre of the same grade of potatoes from
Rural variety. Tests in other parts of the State have not
they have been made, yields as good as or better than from
obtained from Potomac.

Vines of the Potomac have some resistance to late bli
hoppers and flea beetles, Dr. Jehle says. The tubers are
late blight rot than tubers of the Sequoia, but they are

Dr. Jehle says that the Potomac should be especially valu
small growers and victory gardeners who are not equipped
dusting.

Neither the Maryland Experiment Station nor the U. S
has any seed of the new variety for sale, but seed has be
several certified seed potato growers in Garrett County.
be obtained by writing Dr. R. A. Jehle, University of Ma

Cooperative Extension Work in Agriculture and Home Econo
University of Maryland, and the U. S. Department of Ag
T. B. Symons, Director

(Distributed in furtherance of Acts of Congress of May

FERTILIZER RECOMMENDATIONS FOR 1944 CROPS

Ralph W. Donaldson, Extension Agronomist

THE supply of fertilizer materials for 1944 crops is larger than in any previous year, except for potash. A greater use of fertilizer is to be encouraged as a direct means of increasing food production with the least increase in labor needs. A tremendous demand, therefore, may exceed the available supply. Only by immediate ordering and advance deliveries of mixed fertilizer may a farmer be assured of supply in time for use.

In contrast with the character of materials last year, nitrogen will be relatively abundant by an increase of over 30 per cent, but potash may be short by ten per cent. There is promise of at least 20 per cent more phosphorus.

In consequence, the War Food Administration has modified somewhat the regulations of the previous year to cover the present twelve-month period of July 1, 1943-44 of fertilizer distribution. Some important changes are noted.

I INCREASED USES PERMITTED—especially of nitrogen.

a. Normal rates of nitrogen are restored in popular grades for crops.
b. Additional amounts of straight nitrogen materials are available for top-dressing use on food and especially on forage crops.
c. Victory garden requirements are provided either in specially designated "Victory Garden" materials of 5-10-5 grade; nitrogen and super-phosphate materials in packages of less than 100 pounds; or any approved grades of materials in 100 pound sacks.
d. "Specialty fertilizers" are permitted for **non-crop** uses such as lawns, etc. composed of mixed ingredients (which need not be approved grades) and in addition straight nitrogenous material and super-phosphate. The volume of fertilizer for such uses will be curtailed at points of manufacture.

II APPROVED GRADES OF MIXED FERTILIZERS

0-14-14 or higher	5-8-7
3-12-6 or higher	7-7-7 or higher
5-10-5 or higher	4-16-0 or higher for tobacco only
5-10-10 or higher	5-3-5, 6-3-6 for tobacco only

Higher strengths are permitted for grades so designated. When higher-strength grades are used, proportionately less material is required to supply the equivalent plant food of the minimum grades listed.

III AMOUNTS

The amount of fertilizer for which a farmer may apply is determined by the acreage of crop to be grown, multiplied by the acre rate of application.

Group A crops are permitted rates (if needed) up to the maximum established. Moreover, a preference is quoted in supplying "A" crops before "B" crops requiring fertilizers at the same time, provided the order for "A" crops is placed at least 30 days before the fertilizer is required.

Group B crops are entitled to fertilizer regardless of previous practice but only at rates which are deemed customary for the crop. Such rates are usually below the maximum.

Special Circular No. 95 — Issued by Mass. State College, Amherst, Mass.

DECEMBER 27, 1943

HOME GROWN GRAIN KEY
TO FEED SOLUTION

TENNESSEE WILL NEED 549,000 TONS OF CONCENTRATED FEED NEXT YEAR
TO MAINTAIN THE PRESENT NUMBER OF LIVESTOCK, DECLARED C. E. WYLIE,
AN OF THE STATE FEED COUNCIL, IN URGING ALL AGENCIES DEALING
EED TO COOPERATE IN PRODUCING A MAXIMUM AMOUNT OF MILK, MEAT
S TO MEET WAR REQUIREMENTS.

THE PRODUCTION OF HOME GROWN FEEDS CONTINUES TO BE THE BIGGEST
IN FEEDING TENNESSEE'S LIVESTOCK, ACCORDING TO WYLIE, WHO IS
EAD OF THE DAIRY DEPARTMENT, U-T COLLEGE OF AGRICULTURE. PLANS
NG THE NUMBER OF LIVESTOCK TO KEEP NEXT YEAR SHOULD BE GOVERNED
BY THE AMOUNT OF FEED THAT CAN BE PRODUCED ON FARMS IN
EE.

HE ESTIMATED FEED GRAINS PRODUCED IN THE STATE THIS YEAR IS
00 TONS, AGAINST ESTIMATED LIVESTOCK REQUIREMENTS OF 2,200,000
ADDITION TO 255,000 TONS OF COMMERCIAL PRODUCTS. THUS, WITH
RATED FEED NEEDS OUTSTRIPPING THE SUPPLY, MUCH CAN BE DONE TO
E PROBLEM AT HOME IF THE STATE'S APPROXIMATELY 15 PERCENT IN-
IN THE GOAL FOR FEED GRAINS IS MET.

#

FARM MACHINERY OUTLOOK
FOR 1944 IMPROVED

IMPROVED OUTLOOK FOR NEW FARM MACHINERY IN 1944 IS FORESEEN
WAR FOOD ADMINISTRATION, IN AN ANALYSIS OF THE CURRENT AND
ATED PRODUCTION SCHEDULE.

VER-ALL RAW MATERIALS AUTHORIZED BY THE WPB FOR MAKING GENERAL
, TILLAGE, AND HARVESTING EQUIPMENT PROVIDES FOR APPROXIMATELY
THE QUANTITY PRODUCED IN 1943, OR ABOUT 80 PERCENT OF THE
ION IN 1940. THE MANUFACTURE OF REPAIR PARTS WILL BE
ICTED.

#

LABOR

Mr. Farmer... Can You Use This Boy?

He Is a Victory Farm Volunteer

EMERGENCY FARM LABOR PROGRAM

Circular 571

UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS

Hiring Inexperienced Workers

Some suggestions to farmers on starting new workers at their jobs

1. **Show new workers around the place.**— Acquaint the worker with the farm house and surroundings. Explain arrangements for eating, sleeping, washing, and other facilities. Perhaps nothing would make the worker, especially a boy or girl, feel at home quite so quickly as to be shown the "cookie jar," a supply of cooled milk, or of fresh fruit. Point out the different crops, location of fields, and pens for livestock. Explain uses and names for various farm machines.

2. **Check over worker's clothing.**— See if work shoes, gloves, and wearing apparel are suitable. Advice may be needed as to kind, quality, and prices of clothing and where it can be bought.

3. **Explain about fire hazards on farms.**— If the worker smokes, point out "no smoking" areas. From experience of farmers generally it is usually better to point out safe places for smoking than to attempt to prevent it entirely. Tell the worker to a... all used matches and step on *all* cigarette... ashes.

4. **Working hours.**— **Explain your us...** quitting times and the importance of h... as milking and feeding done on a r... Point out that emergency situations ma... unpaid overtime.

5. **The first job.**— Start the new wo... that can be done easily but not on one... unimportant. By all means don't start... able job. If possible, choose a task that... the worker. If this is not possible, have... *perienced* person, who is capable and... to explain how the work is done.

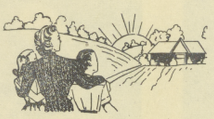
6. **Give them a chance to toughen up.**... risk hitching a green colt or a horse that... ing around all winter to a disk harrow a... there ten hours on a hot day. You w... sure that the collar on the horse is fitt... you would "watch his shoulders." Use... ment in breaking in the new workers... them too long on a heavy job and by... blistered hands and sunburn.

Leaflet 50

UNIVERSITY OF KENT...
College of Agriculture and Home...
Agricultural Extension Serv...
Thomas P. Cooper, *Dean* and D...
Lexington, Kentucky

So.... You are Going to Work on a Farm!

TIPS
To the New Worker



Farming is an essential war industry. Our farmers have lost many experienced men and must call upon new workers to help produce the needed food.

* * *

Your help will be recognized by the nation through membership in The Crop Corps, the Women's Land Army, and The Victory Farm Volunteers.

* * *

The Ohio State University and the United States Department of Agriculture, Cooperating. Agricultural Extension Service, H. C. Ramsower, Director, Columbus. Printed and distributed in furtherance of Acts of May 8 and June 30, 1914.

BULLETIN NO. 219 APRIL, 1943

Housing Farm Laborers

By

O. W. Monson, Head, Department of Rural Engineering

Montana State College
Agricultural Extension Service

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF ILLINOIS, COLLEGE OF AGRICULTURE, AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING
URBANA, ILLINOIS

To the Parents of
PROSPECTIVE VICTORY FARM VOLUNTEERS

I know you are proud that your son or daughter desires to work on a farm and be a *Victory Farm Volunteer* during the summer of 1944. You have a right to be, for this is a very practical way for any young person between 14 and 18 years of age to show his patriotism.

Any parent, however, is likely to have some questions about the program—who sponsors it, how it is supervised, where a *Volunteer* works, etc. We shall give you our honest answers to these questions in this letter.

If there are other matters about which you wish information, we urge that you talk with your County Farm Adviser or with the instructor in charge of the special training course for these *Volunteers* in your local high school, for we want you to understand the program fully and know the conditions under which they will work and live.

Let's help every *Victory Farm Volunteer* to succeed.

Very sincerely,

F. F. Gingrich

F. F. GINGRICH,
Assistant State Farm Labor Supervisor,
Victory Farm Volunteers

Over 20,000 Victory Farm Volunteers were placed on farms in Illinois during 1943
Most of these young folks made good

GROWING FIELD CROPS

WITH LESS LABOR

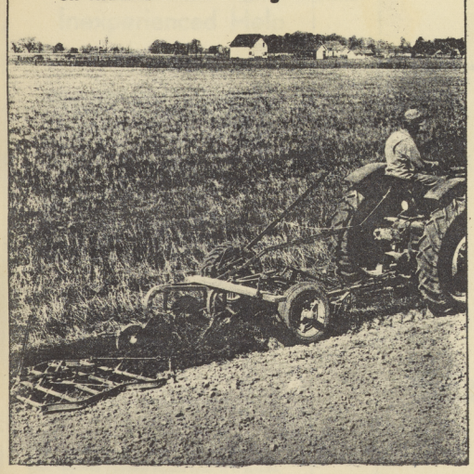
1943

Prepared by

Agricultural Extension Service
of
University of California
United States Department of Agriculture
and
County of Stanislaus, Cooperating
Modesto, California

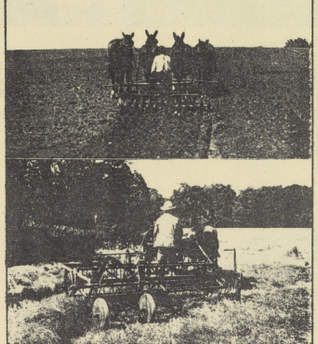
DEPARTMENT OF AGRICULTURAL EXTENSION
Purdue University — Lafayette, Indiana
Extension Bulletin 298 — September, 1943

Ways to Save Labor on Indiana Farms During Wartime



FARM LABOR ADJUSTMENTS

Made Necessary by National Defense



Saving labor and costs

UNIVERSITY OF KENTUCKY
College of Agriculture and Home Economics
Extension Service

16

HOW YOU CAN HELP A BOY LEARN EACH JOB

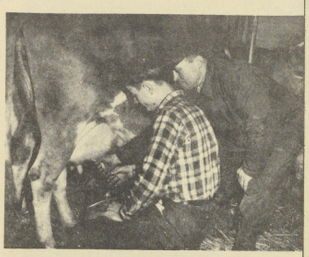
Before starting a boy on a job **GET ACQUAINTED** with him. **PUT HIM AT EASE,** be friendly, make him feel that he is needed and welcome. Get his interest by having him tell you some of his experiences. Explain the importance of the work he is to do. Get his attention and keep it. Then, *on every new job,* follow these steps in teaching him:

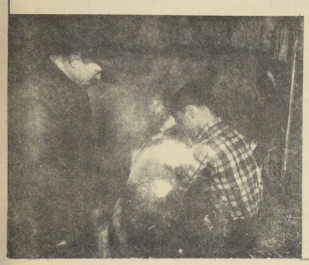
1. Tell him

Explain the main points about the job. Tell him the names of the tools and equipment he is to work with, or many of your words are likely to have little meaning to him. . . . Tell him *slowly, simply,* and *clearly.* Take up one point at a time.

2. Show him

Go thru the motions yourself. Explain your reasons for doing the job the way you do. Be sure he watches you closely and understands each operation. . . . Show him one point at a time. Stress key points. Encourage him to ask questions.



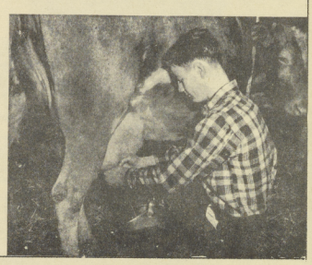


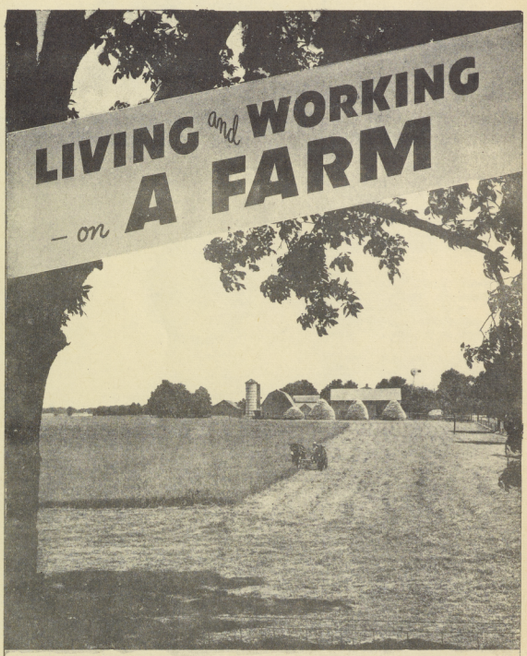
3. Let him do it

Have him do the job while you stay nearby. Help straighten out his mistakes. Be patient. . . . Have him *tell you* and *show you* how to do the job—have him repeat job and instructions until you KNOW he knows.

4. Put him on his own

Let him work by himself, but check up on his work until you are sure he is doing it right. . . . Be certain that he knows what to do in emergencies. Use judgment about leaving him very far from experienced help.





FOR HIGH SCHOOL BOYS AND GIRLS • IN CITIES AND TOWNS

Prepared by College of Agriculture, University of Illinois

ISSUED BY ILLINOIS STATE COUNCIL OF DEFENSE

GOV. DWIGHT H. GREEN, Chairman

APPLICATION FOR FARM PLACEMENT

North Dakota

PREPARED BY THE EXTENSION SERVICE, NORTH DAKOTA AGRICULTURAL COLLEGE, FOR THE ADVANCEMENT OF THE STATE'S EMERGENCY FARM LABOR PROGRAM

North Dakota Agricultural College and U. S. Department of Agriculture Cooperating. R. J. Eastwood, Director of the Extension Service. Printed and Distributed Under Act of Congress, May 8 and June 30, 1914.

ORDER FORMS FOR FARM LABOR

North Dakota

PREPARED BY THE EXTENSION SERVICE, NORTH DAKOTA AGRICULTURAL COLLEGE, FOR THE ADVANCEMENT OF THE STATE'S EMERGENCY FARM LABOR PROGRAM

Dakota Agricultural College and U. S. Department of Agriculture Cooperating. Eastwood, Director of the Extension Service. Printed and Distributed Under Act of Congress, May 8 and June 30, 1914.

OHIO

Are You Using Inexperienced Help On Your Farm?

Manpower is short. Farm as well as industry must use some inexperienced help to secure the needed production. The problem is to use the inexperienced worker so that he or she will be of most help on the farm. It is a task which requires patience, tact, planning and time on the part of the farmer.

The Ohio State University and the United States Department of Agriculture, Cooperating. Agricultural Extension Service, H. C. Ramsower, Director, Columbus. Printed and distributed in furtherance of Acts of May 8 and June 30, 1914.

17

WOMEN IN FARM WORK

Women made up most of the June Grass Stripping Crews harvesting and sacking this specialty crop in North Dakota under the supervision and instruction of a "male" foreman. Women did most of the onion tinning and weeding, and a good share of the potato picking in 1943.

This lady and her aged husband "take in the neighbors cattle during haying and harvest time" to relieve neighbors. Both are in their "70's" but active in watching the fence lines, checking water tanks, and the like on their Sand Hills layout.

This Folder is for

FATHERS AND MOTHERS

And Others Interested in Rural Boys and Girls

UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
Circular 541

School help is quick mentally, appreciates an opportunity to learn, requires patient supervision

Photograph by Ackerman, USDA

How About Manpower Supplies?

By Glenn W. Sample, Purdue University

A survey of the situation and ideas on how to get—and keep—your fair share for the field work to come

ASKED to produce five percent more food in ... than the 1943 record, the American farmer (wiser now than a year ago in the ways of locating and utilizing labor) is seated at the nation's manpower table prepared to make the most of whatever is offered. He knows what he sees will not satisfy his appetite, *but he hopes that it will give him enough strength for the job.*

Selective Service is expected to continue generally the drafting of farm boys and young farmers. Some few farm people move to town, selling out their holdings. Farm labor costs can be expected to rise to higher levels in 1944 as farmers bid for the limited manpower. Even tho Hitler is subdued this year, little manpower relief can be counted on in time to help the farmer; demobilization is generally slow and, besides, we still will have to set "The Rising Sun."

Fortunately, there are a few morsels that promise yet more substantial fare at the manpower table, particularly on the side where the farmers sit.

Last year, studying at the difficult School of Experience, many farmers learned some valuable lessons on labor management, recruitment, and utilization. Particularly did they learn much about the science of using inexperienced farm help profitably. These lessons have not been forgotten. About 800,000 city youths, calling themselves Victory Farm Volunteers, picked up potatoes, pulled and planted tomato plants, drove tractors, picked tomatoes and apples, helped with the cherry harvest, detasseled hybrid seed corn, and did a host of common farm chores. They can now be called "experienced seasonal workers". In Indiana, Michigan, Illinois, and other states, arrangements have been made with the schools to give more interested city boys a special course to condition them for farm work. In Iowa, many of these classes are being taught by successful farmers. These experienced and trained VFV's should attract the sober consideration of any patient farmer needing help during the season.

There is a trickle of farm labor leaving the cities for the country. Generally these persons were originally on the farm and have decided that the city grass isn't as green as the country grass.

Another ray of hope is the farm labor program enacted by Congress in April, 1943, drafting the Extension Service of the state agricultural colleges to administer provisions which call for decentralized action. Under the act, county agricultural agents were given some funds and authority to recruit, train, and place farm workers where needed. About 4,000,000 placements were made last year, including the VFV. [*Turn to page 56*

How About Manpower Supplies?

[*From page 19*]

youth, the Women's Land Army, and other recruited farm workers—all generally labeled as the "U. S. Crop Corps". This is an emergency service, and farmers are urged to do everything they can in locating farm help before placing their orders with their already overburdened agents.

HERE are some of the varieties of workers, described as to skill in farming, now being offered up on the agricultural manpower menu:

1. *Experienced, year-round help, both married and single.* Next to yourself, they are the best all-around farm workers available. But they are scarce and are generally older men. Wages range from $60 to more than $100 a month, including room or house, and sometimes all their meals, or meat and garden crops.

2. *Experienced, farm-reared boys and young men.* Relatively few are available, and they include those who have been deferred from military service for "vital war work on the farm front" and the 4-F fellows who are able to render considable farm work under proper conditions. This group could do year-round farm work with livestock and crops.

3. *Under-employed farmers.* Often a 40- or 80-acre farm operator is willing to make a deal with his neighbors so as to have full-time farm employment.

4. *Farm-experienced or trained city boys and girls.* They are best suited for specific seasonal jobs, such as picking fruit, hoeing, harvesting crops, detasseling hybrid seed corn, and driving power equipment. They need close supervision and work best on a piece or row basis of pay. For example at Vincennes, Indiana, last summer more apples were picked in an hour when the pay was 15 cents *per bushel* than when the youths received a straight 60-cents an hour for their labors.

5. *Farm women and girls.* They are a good source of help, but are now already working at a maximum. Last summer this patriotic group put in about 150 percent more work outside the home doing farm work than normal.

6. *City adults with farm experience or background.* Many of these are in the factories and stores. Some want back on the farm. They offer farmers manpower help during the evenings, holidays, and on Sundays during periods of crop crises. To save a crop that would otherwise be lost, merchants have closed up their stores to do farm work. Some urban people prefer to spend their vacations working on the farm. Farmers around Columbus, Ohio, found city help could best be attracted by offering to pay off in a share of the crops harvested.

7. *Inexperienced city youth and adults.* A vast supply is available, but choice of jobs they can do on the farm is very restricted. However, they have met and would meet a "pressure crop" crisis should one develop.

8. *Migratory workers.* The sugar-beet, tomato-, and truck-crop growers used to this help from Tennessee, Kentucky, Texas, and Missouri find it highly satisfactory. Often it is skilled for specific farm jobs.

9. *Workers from Mexico, Jamaica, and Bahamas.* Last year they were brought to the Cornbelt at Government expense and placed in small camps. They were used only in cases of extreme labor shortage. The prevailing wage was paid and other Government regulations on camp conditions had to be observed. They are not considered practical for the average farmer.

10. *Prisoners of war from Italy, Germany, and other Axis countries.* The Army co-operated last summer in making these prisoners available to farmers, largely in connection with harvesting of tomatoes and other canning crops. The prevailing wage in the community was paid. Prisoners could not be used at distances exceeding 25 miles from camp. Farmers consider this help purely as emergency manpower.

11. *U. S. Soldiers.* In cases of extreme emergency last summer, soldiers were granted three-day passes or sometimes given furloughs. However, they cannot be counted on as a source of farm labor—their job is on another front.

WELL, that's the 11-course manpower dinner being served the farmer this year. From it he must find enough strength to do a bigger food-production job than ever before. His only hope of doing this depends upon his ability to pay sufficiently attractive wages; keep the seasonal worker employed thruout the season and the year-round workers thru the year; have comfortable quarters for the workers and provide other necessary conveniences to maintain their interest; provide work incentives, like bonuses and recognition; have a pleasant attitude towards workers and plenty of patience; use available workers only on the most important farm work; and to use the best possible management in operating the farm.

Here are a few examples of where wartime farm help came thru with flying colors: Ray Bell, Clinton County, Indiana, farmer said this about seven city boys who helped him husk corn: "They were O.K. I have hired all seven of them to finish the husking. They did a fine job." Later 50 more city boys volunteered for similar service and were placed.

To meet the Indiana tomato-planting crisis, resulting from late spring rains, 54 Martinsville boys pulled young, tender tomato plants (3,953,509 to be exact) from 15 acres for Dean Hacker of Morgan County. Hundreds of similar cases could be cited thru the Cornbelt, where city boys really came to the front in a farm-manpower emergency.

From one Minnesota town 25 high-school boys rode the school buses after school to farms to do the evening chores during the winter so as to prepare for the summer's work. A similar setup was worked out recently at Clinton, Iowa. In Minnesota and Wisconsin, dairy farmers have been hardest hit by the manpower shortage; year-round help is needed on these farms and the transporting of town help as just mentioned is a way of getting at it.

ONE Friday evening last spring, Michigan State College received a call for 60 women to pick cherries in the upper part of the state. The order was filled with WLA (Women's Land Army) recruits by the next Tuesday evening. All were from Detroit, and they picked the fruit for 10 days. Who were they? Housewives, a home missionary, two women war workers on vacation, and schoolteachers!

It has been said that most farmers have considered the use of city youth and women on farm work something like the weather in the spring: "A long-drawn-out, cool spell." But there are plenty of evidences now to prove that such an attitude is rapidly dying in the Midwest. END

LABOR SAVING IDEAS FOR VEGETABLE FARMS

M.S.C.

...BLE FARMS

...arm Management

...Agent Leader

...ays by which time could ...ver a longer time to sleep ...hing vegetable farm procedure ...e effected. Here are a few ...-saving ideas apply to most

...als through fields. These ... when harvesting. It should ...tance before loading on ...be planted to low-growing ...rucks and other farm equipment.

...es with labor scarce it may ...veral alternatives which may ... Cross mark the field before ...ion close to the hills will ...o-toothed harrow on the ...igh. If done on a warm day ...o or from being covered will ...otor cultivator may be oper- ...he need of hoeing.

...toes usually requires several ...ive growers are now setting ...tween each pair wide enough ...ment.

...g through a slot in a board is a speedy method of cutting potatoes which are slipped along the board against the knife. If both edges of the knife are sharp the potatoes may be cut both going and coming. Boxes or baskets beneath the knife receive the pieces that are dropped.

PACKING TIME SAVERS. Since 50 per cent of the entire labor of production is required to harvest and pack, labor and time-saving methods are especially important in these operations.

Production Line. One trick is to establish a production line so that the vegetables come into the packing house at one point and move steadily from operation to operation without criscrossing or back-tracking. At the end of the line they should be close to the truck for loading.

Unloading Platforms. Labor is more efficient when work is kept off the floor so that workers do not become fatigued through stooping or kneeling. A few growers have built sloping unloading platforms on which they dump sweet corn, cabbage, cauliflower and similar crops. These platforms slope down to the workers below, who thus have a continuous supply of vegetables immediately before them for rapid handling.

Purdue News Service
For Immediate Release

12-POINT PROGRAM HELPS TO SOLVE LABOR PROBLEMS

LAFAYETTE, Ind., Nov.___---A 12-point program which, if followed, will help Indiana farmers to minimize the labor shortage problems is revealed in an Extension Bulletin, No. 298, "Ways to Save Labor on Indiana Farms During Wartime," just released by the department of agricultural economics at Purdue University.

"Farmers faced with a labor shortage have two choices," the bulletin discloses. "Either they can reduce production, or they can work out some scheme to keep up their production with less labor, Those who maintain their production serve themselves as well as their nation."

The 12 points suggested are as follows:

1. Plan work carefully, well in advance.
2. Put off non-essential jobs.
3. Work done on time saves labor in the end.
4. Keep and post lists of jobs to be done in good and bad weather.
5. Shorten trips to field as much as possible.
6. High rates of crop and livestock production make labor go further.
7. Make full use of machinery. Double up operations. Hire or exchange work for the use of corn pickers, combines, and pick-up balers whenever possible.
8. Large enterprises are more economical of labor.
9. Adjust livestock enterprises to avoid labor peaks.
10. Use labor-saving devices in feeding and caring for livestock.
11. Pool hauling to save time and rubber.
12. Plan work so that youngsters and inexperienced help can be used to save the time of experienced and able farm workers.

The author of Bulletin 298, Dr. P. A. Henderson, formerly with Purdue, is now operating a farm in Nebraska. Copies of the bulletin are available at any Indiana county agricultural extension office.

grk

This Farm Page story emphasizes the importance of farmers lining up the help they are going to need during the coming season in order to do their part in the 1944 food production program.

The Farm Page is syndicated each Thursday to all 92 Indiana county agricultural agents, and to 225 newspapers, farm papers, and radio stations. It usually consists of seven stories.

FARMERS NEED WORKERS FOR COMING CROP SEASON

---Indiana farmers who are now planning ... the coming season should not overlook ... is the time for farmers to line up their help or have it in sight,

That was the word of caution J.B.Kohlmeyer, state supervisor of emergency farm labor, Purdue University, expressed this week, in commenting upon the farm labor situation for 1944. There are still many workers over the state who want year-round farm jobs, but they are growing more scarce as spring approaches and there may not be enough to take care of all farmers needing hands. In a percentage of the cases the workers are moving only from one farm to another.

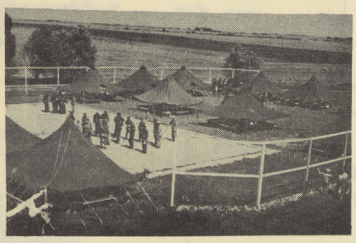
Kohlmeyer pointed out that while a farmer may not be in a position to use profitably a farm hand until spring work starts, he nevertheless might in the long run find it cheap manpower insurance to employ his worker now so as to be sure to have him when the season gets underway. There are many farm jobs of preparing for the spring work that could be done now.

Persons wanting to get a good farm job and farmers needing hands are both urged to contact their county agricultural agent, who is in need of this information. The county farm labor committees working with the county agents need to know now how many farmers will need hands, when, and for how long, the state supervisor said.

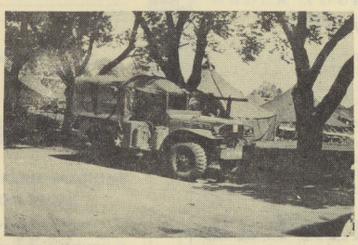
Indiana has a backlog of farm-experienced town boys, girls, and adults, from last season's work. Besides, farmers can expect families coming as a unit from the Southern states, where such arrangements have been made during the winter months. Word has been received that Indiana will have 300 foreign workers this year for use on farms.

ooOoo

4608 TROOP WORKERS HELP OUT



Typical troop headquarters located on MSTU campus, Mayville, North Dakota, for troop labor unit stationed in Traill County in connection with the Farm Labor Program.

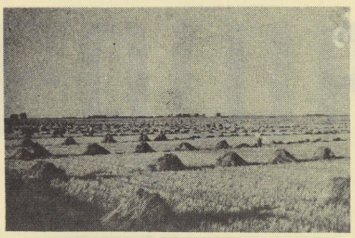


Army vehicle used in hauling troops and supplies at troop labor headquarters.

Traill County girls fussy about their appearance. This "gal", a high school senior, can handle a tractor and field cultivator better than most men in a cornfield.

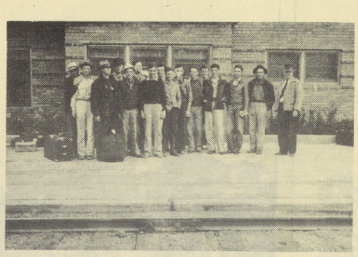
Women canvassers help line up town people as emergency harvest workers. These ladies were snapped while the town recruiting program was under way at Kindred, North Dakota.

VOLUNTEERS DO GOOD WORK



Twenty-four acre field of wheat shocked in about two hours by 12 local volunteer laborers on the Wm. Schultz farm, Traill County, North Dakota. Yield about 30 bushels per acre.

INTERSTATE LABOR

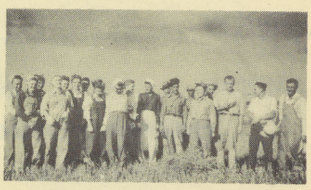


Of the Arkansas laborers ready to depart from Traill County, N[o]
Dakota, for their homes down South. Note smiles on their faces. R.
Johnston, County Farm Labor Assistant is pictured with the group at
extreme right.

3,000 of these workers from Mississippi, Arkansas and Oklahoma, aided in the 1943 harvest.

TYPICAL TOWN AND CITY HARVEST VOLUNTEERS

(Emergency Labor Pools)



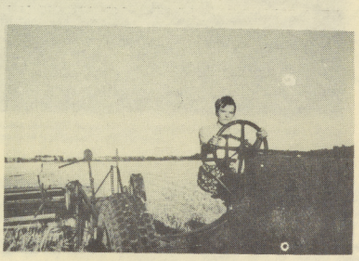
AAA Office Gang Shocks 1,000 Acres

After Work

Hardy Oletzke's Lisbon Volunteer Crew
Ready to Go out and
"Stand 'Em Up"

HIGH SCHOOL GIRLS REPLACE MEN

This young lady finds a heavy denim jacket and a kerchief over the neck and ear necessary to keep mosquitos at their distance while working in a Cass County Sweet Clover Field.



This young lady swathed and drove the combine over 640 acres for her dad in 194

EQUIPMENT

Publication 266 December, 1942

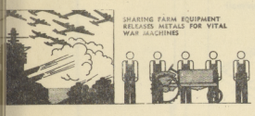
PLOW ADJUSTMENTS

BY

G. E. Martin
AGRICULTURE EXTENSION ENGINEER
AND
M. T. Gowder
ASSISTANT ENGINEER

AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE

Leaflet No. 36 (Revised) May, 1943



RATES FOR FARM MACHINE CUSTOM WORK

By M. T. Gowder and G. E. Martin

War conditions make it essential to keep farm machinery and equipment at work as many days in the year as possible.

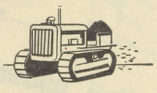
Many farmers unused to doing custom work indicate willingness to help in their communities. To determine rates commonly paid, custom operators and farmers have supplied us figures which we have averaged and show on the map in the sections where they apply, as well as in the table.

From dependable figures, the actual costs of plowing and combine operations have been determined. These are offered to guide both parties to a job of custom work.

Too often the costs of moving equipment from one farm to another is overlooked by the person hiring, who sees only the amount of work done and the charges made for same.

For a 25 H. P. Tractor, original cost $1,000, operating 500 hours a year, and a two-bottom plow, original cost $175, operating 100 hours a year, items included and per hour costs are:

This Is the Time to Check Your Farm Machinery Repair Needs



ORDER YOUR REPAIRS NOW!

BE SURE YOU GET THEM AND NOT "JUST EXPECT" THEM

You'll Aid National Defense and Save Added Expense

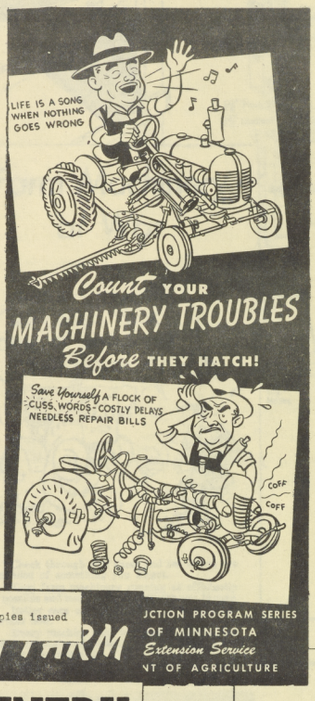
WHEN PARTS ARRIVE **REPAIR IMMEDIATELY**

If in Doubt Have Your Tractor and Other Machinery Checked and Repaired by Your Reliable Local Dealer!

DO THIS EARLY!

BE PREPARED

AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF NEVADA



JCTION PROGRAM SERIES
OF MINNESOTA
Extension Service
NT OF AGRICULTURE

Total of 150,000 copies issued

20 TIPS ON FARM MACHINERY

EVERY FARM MACHINE IS A WAR MACHINE

AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
DECEMBER, 1943 AMES, IOWA PAMPHLET 79

CIRCULAR NO. 133 FEBRUAR 1943

RENTAL CHARGES FOR FARM MACHINERY

MONTANA STATE COLLEGE
AGRICULTURAL EXTENSION SERVICE
BOZEMAN, MONTANA

HOME-MADE FIELD ENSILAGE HARVESTERS

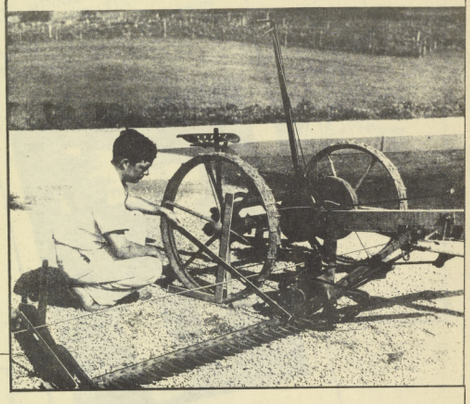
KANSAS STATE COLLEGE
OF AGRICULTURE & APPLIED SCIENCE
EXTENSION SERVICE, MANHATTAN, KANSAS

PUBLICATION No. 240 (Revised) SEPTEMBER, 1942

MOWER REPAIRS And ADJUSTMENTS

By
EARLE K. RAMBO and G. E. MARTIN

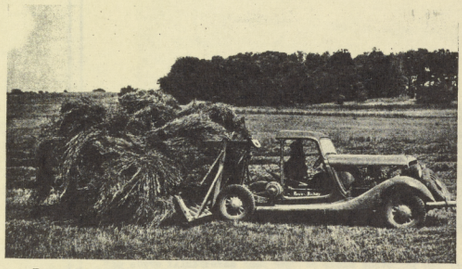
AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE



BUCK RAKES

Reprinted May, 1943

By
C. B. Richey and R. D. Barden
Department of Agricultural Engineering, The Ohio State University



Farmers in northwestern Ohio build, and have built, more and more buck rakes each year. It is a much appreciated time saver in harvesting hay and grain crops.

Buck rakes (also called sweep rakes) mounted on old automobiles, trucks, or rubber-tired tractors, have rapidly increased in number in northern and western Ohio during the past few years. Horse buck rakes, and later, tractor buck rakes, have for years been one of the principal haymaking tools in the West where practically all the hay crop is stacked in the field.

It was not until about 1935 that some enterprising farmers along the Ohio-Indiana border began adapting this tool to the work of bringing hay from the field to the barn. Their first successful rakes were mounted on old automobiles rather than tractors, because most of the tractors then on farms were too slow for transport purposes. Although farmers made the first rakes, local blacksmiths and welders soon started making them to order, thus supplying them for farmers who did not wish to make their own.

The primary reason for the use of this tool is that it reduces the man-hours per ton required to put up hay, and it makes the work easier by eliminating the loading of wagons and making the hay easier to handle in the mow.

Data on handling and storing of dry hay, windrow to haymow, in Ohio in 1941 by various methods appears in the following table.

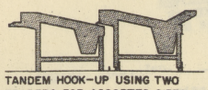
In addition to handling dry hay, buck rakes have proved themselves to be efficient at several other jobs, including:

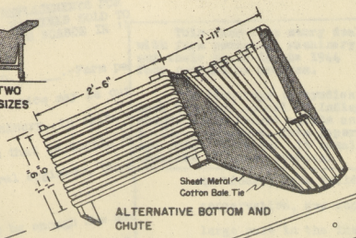
1. Bringing green hay to the silo for grass silage. —The green hay can be fed into the cutter from the ground much easier than off a wagon.
2. Bringing grain shocks to the thresher.—One rake will usually replace three wagons.
3. Bringing combined straw to the barn, stack, or baler.
4. Bringing corn shocks to the husker-sh

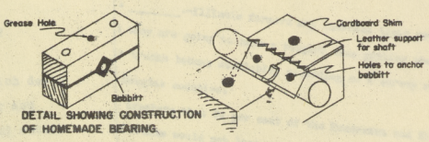
20

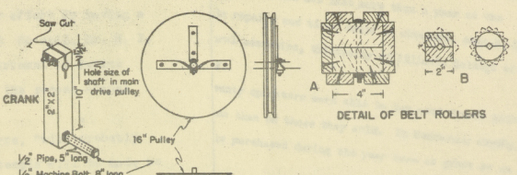
EQUIPMENT

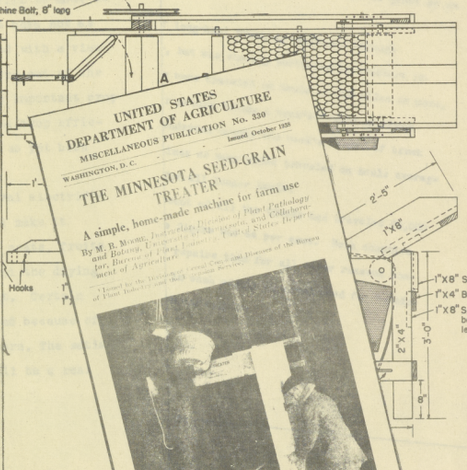
HOMEMADE POTATO GRADER











PERSPECTIVE O HOOK-UP

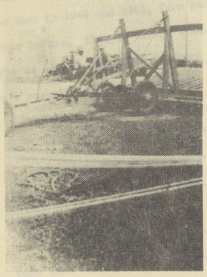
DIAGRAM HOOK-U

Check through this sheet and see if you are reminded of something you forgot.

Keep farm machinery running as efficiently as possible and make it serve until the war is over.

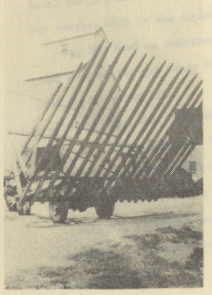
Better care of farm machinery is very important now.

Every machine that is repaired means that more material and skilled labor is released for making war weapons.

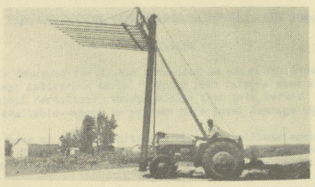


PIERCE COUNTY, NORTH DAKOTA

Power sweep constructed by Tony Zacher, Balta in O.S.I.A. course, set up by county agent and Smith-Hughes Vocational Agriculture Department. 1943

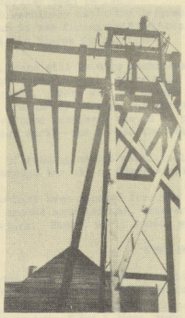


Power sweep rake Lifted up by power lift in above picture.



John Salwey's combination sweep stacker, made by Ben Bachmeier, Orrin, Pierce County, North Dakota

John Salwey's sweep stacker in action



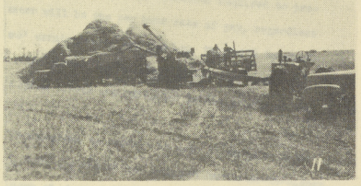
Details of mounting of combination sweep and stacker, made by Ben Bachmeier, Orrin, Pierce County, North Dakota

John Salwey put up 200 acres of hay with this outfit.

---

34 demonstration machines like this constructed and used in Pierce County, 1943

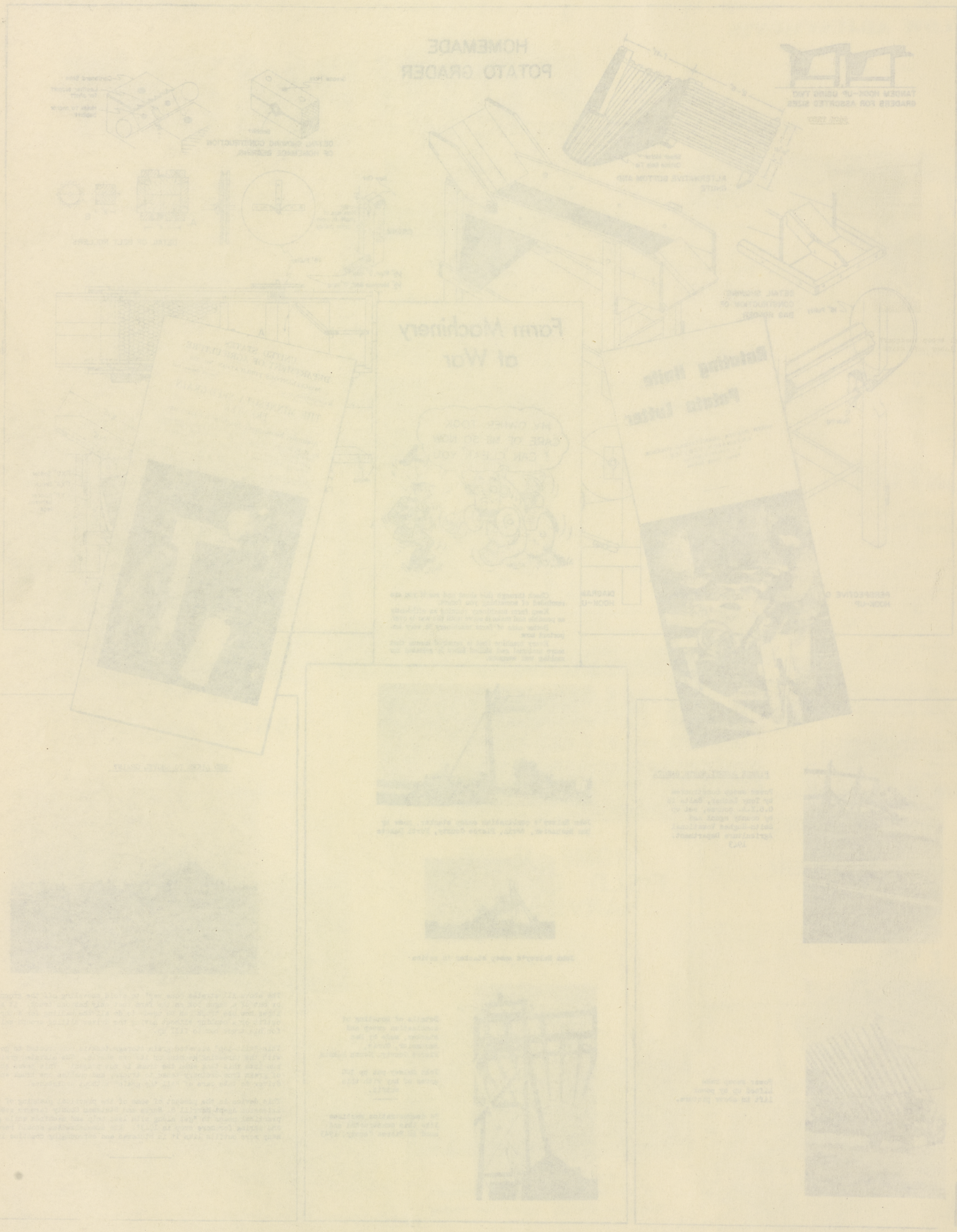
WHO LIKES TO SHOVEL GRAIN?



The above illustrates "one way" to avoid shoveling off the ground or out of a wagon box on the farm that only has one truck. It also shows how one truck can be used to do all the hauling for a threshing outfit or a combine without having the driver sitting around waiting for his truck box to fill up.

This "tilt-top" elevated grain storage tank is constructed to go along with the threshing machine on its own wheels. The elevated grain can run into this tank when the truck is not present. This saves shoveling of grain from ordinary tanks to trucks, and enables one truck and driver to take care of "all the grain" without assistance.

This device is the product of some of the practical planning of County Extension Agent Merrill S. Burke and Stutsman County farmers seeking practical means to "get along with less help and machines while growing and caring for more crop in 1943". Its demonstration should result in many more outfits like it in Stutsman and surrounding counties in 1944.



REPLACEMENTS FOR
MACHINES SOLD TO
BE SCARCE IN 1

URBANA, ILL., Jan. ____.-Farm pe
machinery at an attractive price may be out
replacing it with new machinery, in spite
authorizing a 1944 output that is double t
Hay, extension agricultural engineer, Univ
of Agriculture.

There will not be enough new mac
the new year because of shortages of fact
parts, such as bearings, castings and mag
that is available will go only to those w
for its use in food production.

"It is going to be up to the f
shape during the slack winter months,"
worked satisfactorily during the past y
put in good condition for the coming se

He points out that lack of re
make it necessary to place orders promp
and installing replacements.

"There can be no letup in th
paign for farm machinery," he adds.
ery is not so rosy as some people see

-0-

DM:CG
1-4-43

This Farm Page story deals with farm power and machinery, and their place in the 1944 food production program.

The Farm Page is syndicated each Thursday to all 92 Indiana county agricultural agents and to 225 newspapers, farm papers and radio stations. It usually consists of seven stories.

FARM POWER AND MACHINERY
HELP FOOD PRODUCTION

___---"Agricultural engineering, which deals
es of agriculture, namely farm power and machinery, farm buildings, rural electrification, and soil and water conservation, has contributed in the present war effort by having a large part in the increased production of food." So said, Dr. H. J. Barre, head of the agricultural engineering department at Purdue University, speaking on "Today and Tomorrow" at the recent Annual Agricultural Conference at Purdue.

"The farm machinery of the future," said Barre, "will probably not be far different from that of today, but attempts will be made to equip more farms with power equipment. The small farms have not as yet been equipped. Further, machinery will be developed with a view of not only reducing labor but also to take the hard work out of the back-breaking jobs on the farm. Although hay is a very important crop in this state, economical machines which will handle the crop efficiently and with a minimum amount of hard work have not as yet been developed.

"There will be new applications in the field of rural electrification. These include the farm type freezer which will make it possible for the farmer to freeze and store all of his meats, fruits and vegetables for his own needs. The curing of hay and the drying of grain especially will see a good deal of development. Certain machines, such as the picker sheller, cannot be marketed because of the inability to dry and store high moisture shelled corn. The satisfactory solution to the drying of grain on the farm will be a real contribution to agriculture."

grk

TRUCK SCARCITIES
ADD TO PROBLEMS
OF '44 PRODUCTION

• _____--Illinois farmers may increase their pro-
they are going to have a tougher time getting their
trucks become available, according to a survey re-
Douglas counties.

truckers that 64 per cent of the Henderson and 28
trucks would not last more than a year at the
repairs and tires could be obtained, says B. D.
economics, University of Illinois College of
y.

unty operators were able to buy used trucks with
em than on those they sold. In Henderson county,
s purchased during the year were as great as on

long-haul trucking continued through
, but was sharply curtailed by truckers in
were traveled on hauls of 100 miles or more,
nature during a week's record of truck
nderson county the week's record of truck
imes as many miles traveled on hauls averag-
for all longer hauls.
cent of all the trucks had traveled 90,000
figure was 44 per cent. Both counties
repairs than for all other reasons com-
in each county reported need for repair
three months.

- 0 -

C
O
P
Y

CARE AND REPAIR OF FARM MACHINE

One of the major contributions to the war food prog
farmers are giving their machinery and equipment. Repor
us that in 1942 and 1943, farm machinery went into the f
over before. This is always desirable, but during the
for we've had fewer new machines to use at a time when
all records in food production.

The outlook for production of machinery for use n
there is no cause to let up in the CARE of farm machin

Adequate care of machinery means two things: Fir
ready for use. Second, careful maintenance during use
dependable service.

Let's go into the repair of farm machinery with
know that there are no longer any restrictions on mat
Consequently, parts should be easier to get in the n
should go over their machinery as soon as possible,
local dealers as soon as they can for the replacemen
for service work in the dealer's shop.

So, the word on machinery is: Keep it producti
good care of it; get ready for the 1944 push by goi
your repair parts NOW.

"Keep Your War Equipment Fit and Fighting."
the farm machinery front. More machinery and equi
but this will not be sufficient to supply the repl
require. Remember, that a good working machine r

Farmers, equipment manufacturers, and governm
eight-point program for maximum utilization of fa
the months ahead.

C

THE OUTLOOK FOR FARM SUPPLIES FOR 1944

FERTILIZER

A considerably improved fertilizer situation is ahead for 1944 provided farmers order and accept deliveries early. During 1943 farmers used about 10.5 million tons of chemical fertilizer, which is more than ever before. For 1944 still more will be available--about 10 percent more total tonnage than for 1943.

About 625,000 tons of chemical nitrogen will be available compared with 460,000 tons for 1943. There will be about 7,000,000 tons of superphosphate compared with 5,800,000 last year. Potash will be somewhat less plentiful.

One of the most important activities that can be carried out locally is to urge farmers to buy early and get their supply of fertilizer delivered as soon as possible. We will be using a record amount of fertilizer, and only by moving it throughout the winter can we help the manufacturers to get the job done with their short labor supply. Early ordering will spread labor and transportation, and reduce their storage problems.

FARM MACHINERY AND REPAIRS

Materials have been allotted to the farm equipment manufacturers to produce 80 percent as much machinery as during the record years of 1940 or 1941, whichever was the higher. This is twice as much as was allotted for 1943. Of course, no one is sure that the 80 percent allotted for 1944 will come through but we do have the following encouraging developments:

1. A considerable amount of machinery authorized for 1943 was not produced in time fo use in 1943 and will be available for next year.
2. The program for producing farm machinery for 1944 is under way at least six months earlier than in 1943.
3. The farm machinery rationing program will no doubt be more efficient for 1944 than it was during 1943 because of the experience gained by our agricultural war boards during 1943.

Even though there will be more machinery to distribute during 1944 than during 1943, perhaps twice as much, there will not be enough to fill the demand by at least 50 percent. There will be enough machinery sold to more than offset that which would ordinarily be worn out during the course of the year. Applications for rationed machinery should be placed with County Farm Machinery Rationing Committees early--the sooner the better.

The chances of getting needed small tools and miscellaneous supplies have been increased through the use of simpler priority regulations.

Restrictions have been removed from the manufacture of farm machinery repair parts. The amount manufactured, however, will be based on needs and needs are judged by orders. Hence, early orders will determine the amounts made.

CONTAINERS

It is expected that the general situation on containers, both new and used, will be tighter in 1944 than any year during the war thus far. During 1943

Issued by the Extension Service, Willard A. Munson, director, in furtherance of Acts of May 8 and June 30, 1914. Massachusetts State College, United States Department of Agriculture, and County Extension Services cooperating. 12,000

Radio Talk
Dec. 6, '43
WABI

NES ENABLE FARMERS TO MEET CHANGES

use of labor saving machinery, which reduced the
per unit of production, that farmers were able to
that have taken place in this country in the past
creases in earnings rates of non-agricultural workers.
have several different wage scales to see their own
whose products they buy for living and production
determined by the relation between the prices they
the number of man-hours they have expended in pro-
wer number of hours of man-labor required to pro-
atter will be the per hour rate of pay, regardless
rs' earning rates are too low, they will be handi-
rates prevailing in other industries whose pro-
rates always are reflected in the prices of the

67 man-hours to harvest an acre of wheat with the
, with the use of the combined harvester-thresher
acre of wheat could be reaped, threshed, and stored

seen that it was only through the efficient use
e to keep pace with increasing rates in other
in other industries which supplied farmers, they
mount of labor required to produce their products
higher rate of compensation. Without machinery,
moved forward at so rapid a pace.
arm equipment industry has made remarkable im-
amples: the small one-plow tractor on rubber
hauling; the baby combine harvester-thresher;
will be available to the American farmer after

LABOR UTILIZATION

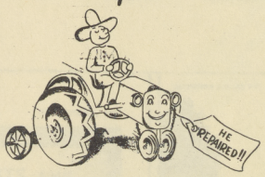
Demonstration Labor-Saving Equipment Constructed 1943

County	Sweep Rakes	Stackers	Shock loaders	Swath-ers	Portable Elevators	Spud Pick-ers	Pony Drills	Hog Feeders	Beet Loaders
Southeast District									
Barnes	200	200							
Burleigh	50	25	35						
Cass	32	92	165					133	8
Dickey	100	10							
Emmons	120								
Kidder	100	5							
LaMoure	34								
Logan									
McIntosh	21	2							
Ransom	60	24							
Richland	10	4							
Sargent	80	5							
Stutsman	175	125							
Total	982	492	190					133	
Southwest District									
Adams	3	2							
Billings									
Bowman	20	15						60	
Dunn	43	7							
Golden Valley	12	3							
Grant									
Hettinger	5	5			43				
Mercer	5								
Morton	12	15							
Oliver	25		15						
Sioux									
Slope									
Stark									
Total	125	47	15		43			60	
Northeast District									
Benson	46	3	5	70	16				
Cavalier	75	10							
Eddy	150	25							
Foster	40	15	20						
Grand Forks	50	5							
Griggs	70	60	45						
Nelson	50	15							
Pembina	50	12			175	15			
Ramsey	18	9	5	1					
Steele	35	12							
Towner	50	25		15					
Traill	100	25	1		26			40	
Walsh	75	65	40			1			
Wells	145	27		23			35		
Total	964	308	121	109	217	16	35	40	
Northwest District									
Bottineau	75	47	1		75				
Burke	40	12		65					
Divide	18	6	2						
McHenry									
McKenzie	30	20							
McLean	35	15	25						
1/ Mountrail	100	30	25		150				
Pierce	21	13	3	6	3			200	
Renville	55	25							
Rolette	40	20	2						
Sheridan	35	5							
Ward	30	10	10						
Williams	60	25	3		115				
Total	539	228	71	71	345			200	
GRAND TOTAL	2610	1075	397	180	605	16	35	433	8

1/ Saved 400 men

Extension Folder W-3 JANUARY 1942

This is the time to Repair



ORDER YOUR REPAIRS NOW!

BE SURE YOU GET THEM
AND NOT "JUST EXPECT" THEM
YOU'LL AID NATIONAL DEFENSE
AND SAVE ADDED EXPENSE

WHEN PARTS ARRIVE *repair immediately*

IF IN DOUBT HAVE YOUR TRACTOR AND OTHER MACHINERY CHECKED AND REPAIRED BY YOUR RELIABLE LOCAL DEALER! • • • • DO THIS EARLY

BE PREPARED

PREPARED BY D. L. HITCH
UNIVERSITY OF ARIZONA

College of Agriculture, Agricultural Extension Service
Cooperative extension work in agriculture and home economics, the University of Arizona College of Agriculture and the United States Department of Agriculture cooperating.

NOVEMBER 8, 1943

TRACTORS MUST CARRY EXTRA LOAD IN CROP GOALS

TRACTORS ON TENNESSEE FARMS WILL HAVE TO PLOW TWO ROWS, AND HELP THRESH TWO SACKS OF WHEAT WHERE THEY PLOWED ONE ROW AND THRESHED ONE SACK LAST YEAR IF THE VOLUNTEER STATE'S VICTORY CROP GOALS FOR 1944 ARE TO BE MET, DECLARES G. E. MARTIN, EXTENSION RURAL ENGINEER, U-T COLLEGE OF AGRICULTURE.

TENNESSEE WILL BE SHORT APPROXIMATELY 400 TRACTORS IN 1944, MARTIN SAYS, WHEN THE STATE WILL BE CALLED UPON TO PRODUCE THE GREATEST AMOUNT OF FOOD AND FEED IN ITS HISTORY. THIS WILL REQUIRE COOPERATION IN THE USE OF TRACTORS, AND A GOOD MAINTENANCE PROGRAM.

A "POOL" OF 4 TO 12 OR 15 FARMERS PROVIDES AN EFFECTIVE ORGANIZATION, MARTIN POINTED OUT. THEY CAN EASILY WORK OUT DETAILS ON CHARGES FOR SERVICES, USE OF MACHINERY, ETC.

LEAFLET 36, "RATES OF FARM MACHINE- CUSTOM WORK", PUBLISHED BY THE AGRICULTURAL EXTENSION SERVICE, U-T COLLEGE OF AGRICULTURE, SHOWS A FAIR RATE TO CHARGE FOR PRACTICALLY ALL TYPES OF FARM MACHINERY. THIS LEAFLET WILL BE A VALUABLE AID IN THE FORMATION OF AGRICULTURAL [illegible] CAN BE OBTAINED BY WRITING TO THE EXTENSION SERVICE.

Keep Your Machines In Service

	Replacement and Repair	Overhauling and Painting	Servicing and Lubricating
[illegible] drapers, and [illegible] up tongue, [illegible] metal parts	Check, replace, tighten, or sharpen ledger plates, knife clips, wearing plates, and sections. Check for worn gears, shafting, bushings, bearings, pitmans, runners, and other parts.	Inspect wheel ratchet for wear on pawls and spring tension. Adjust levers, lifting mechanism and hitch. Paint new parts and all wooden parts as required.	Check knife register and cutter bar alignment. Adjust bearings and lubricate as required.
[illegible] grease ex- [illegible]ch as chains, [illegible]d gears. Re- [illegible] drapers, and			
[illegible]ovels, shares, [illegible] Check for re- [illegible]parts.	Replace or sharpen shares or shovels and coulters as required. Oil and grease exposed metal parts. Store in shed.	Straighten braces, beams, and tighten bolts. Check hitch and levers. Replace, sharpen, or hard-surface shares.	Pack wheel bearings and rolling coulters. Adjust coulters and wheel alignment.
[illegible]m and shoes, [illegible], lost or worn	Replace worn bearings, sharpen discs, and oil or grease exposed metal. Check hitches, braces, and trucks, and reforge or replace teeth. Check hitch chains, ratchets, and lift levers.	Paint as required. Paint wooden wheels. Replace worn, broken, or cracked discs and scrapers. Straighten frames and hitches.	Lubricate wheel and truck bearings.
[illegible] worn discs. [illegible] in disc gangs			
Grain Drills	Remove grain and fertilizer from hoppers.	Renew bearings, sharpen and replace teeth rods or shoes.	
Harrows Rakes Hay Loaders Weeders	Check for lost or broken teeth and slats. Replace or sharpen teeth as required.		
Tractors Trucks	Check water pump and block for drainage. Use heavy oil on cylinder and other exposed metal parts.	Repair as required. Clean air cleaner, fuel and oil filter. Replace ignition cables and radiator hose. Paint new parts as required.	Adjust steering gear and hitches. Repack wheel bearings. Replace spring bushing. Check shock absorber. Change oil and lubricate as required.
Trailers	Change to winter oil and grease for intermittent use. Charge battery or remove to a safe place. Protect easily damaged p[illegible] proof covering.		
Wagons Manure Spreaders	Clean all working [illegible]r worn and bent	Check breaker points, spark plug gap, tappet clearance, and compression, for ring replacement and valve grinding.	

1103 - 10-25-43

THE FARM EQUIPMENT FRONT IN 1943

The determination of the kinds and quantities of mach[illegible] 1943 is contained in an order known as L-170 issued Octobe[illegible] allowed a limited production of new machines. The number [illegible] types of machines: This order authorized the production o[illegible] machines produced in 1940. As to repair parts, the order [illegible] equal to 130% of the 1940-41 average.

Since the original order, certain supplementary autho[illegible] production have been made for new machines and repair part[illegible] been made in percentages and just how to compute the final[illegible] determine. However, repairs have been increased to 160% o[illegible] Whether the production of new machinery will be produced u[illegible] amount is open for questioning. Quotas are useless unless[illegible] the raw materials available in time to permit manufacture [illegible] seasonal requirements. The order L-170 merely states quat[illegible] It does not provide raw materials nor manufacturing facili[illegible]

Manufacturers must obtain government permits before r[illegible] to them. Army, Navy and other war agencies may have prior[illegible] have not received their raw materials. If delays result i[illegible] materials, some manufacturers will be unable to supply the[illegible] for seasonal operations.

Most companies are in a position to manufacturer more[illegible] now permitted. Although many are doing war contracts, the[illegible] plants did not lend itself to the manufacture of implement[illegible] space and tools left to make farm equipment. In 1942, the[illegible] permitted the production of 83% of the 1940 production. He[illegible] substantially increased by inventories of equipment made in[illegible]

23

UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
BERKELEY, CALIFORNIA

A HOMEMADE BALE LOADER

J. S. WINTERS[1] AND J. P. FAIRBANK[2]

Windrow pickup hay balers make it possible for hay growers and feeders to save labor. A further saving of labor is made by the use of a machine which picks up and elevates to a point above the truck bed the bales which are scattered over the field by the baler.

A sufficient number of manufactured bale loaders is not now available because of a criti-cal-material shortage; this circular describes a bale loader[3] which has been developed by the Division of Agricultural Engineering, University of California. This loader is constructed mainly from noncritical materials and old automobile parts. It can be built by farmers or others who have access to a welding outfit and a lathe.

The loader is ground-driven. The drive is made from two old automobile rear axles. A Ford "V-8" rear axle carries the loader and drives a countershaft made up from parts of a Ford "Model A" rear axle. These axles were selected because the torque tube and radius rods of the "V-8" make a simple and rugged support for the countershaft, bale chute, and platform. Furthermore, these two readily available axles can be combined with a minimum of shopwork. The bale chute and platform are made of wood, while the hitch bars and all braces are made from standard black pipe.

The accompanying photographs and the working drawing (fig. 20) illustrate the various parts and show how they are assembled to make a traction-driven bale loader which slides the bales up a chute by means of a single chain (figs. 1 and 2).

Fig. 1.--Loader in operation, with a bale entering the chute.

Fig. 2.--Bale being delivered to the loader platform.

Procedure

The following instructions may aid in constructing this bale loader. First check the list of materials and see that everything needed is at hand or can be obtained.

Countershaft Assembly

Completely dismantle the "Model A" Ford rear axle, and discard the axle shafts, differential spider, and bevel pinions. Machine a countershaft according to dimensions given in figure 3, and weld it into one half of the differential case as shown at A, figure 4. Cut axle housings from the differential housing at the welds (see A, fig. 5). Machine two ½-inch plates to fit into the openings on the differential housing where the axle housings were cut away. One plate should be drilled and tapped at the center for a 1-inch thread (see B, fig. 5). The other plate is bored to a loose fit for a 1¼-inch shaft, then counterbored to take a no. 50049 National grease retainer (fig. 6). Leave the grease retainer out until the final assembling, otherwise it might be damaged. Weld both plates into place (see A, fig. 5). Assemble the master gear, differential case, countershaft and differential housing. Install the master gear in the differential case so that it will turn in the opposite

[1]Associate in Agricultural Engineering.
[2]Extension Specialist in Agricultural Engineering.
[3]Investigation has not revealed any patent which this device would infringe. However, the University of California assumes no responsibility in this respect if found otherwise.

SHARING FARM MACHINERY IN 1944
J. T. Stovall
Acting Soil Conservationist

[illegible]chinery Program has been announced, and it is a pleasure to [illegible]e relief in sight for the hard pressed farmer.

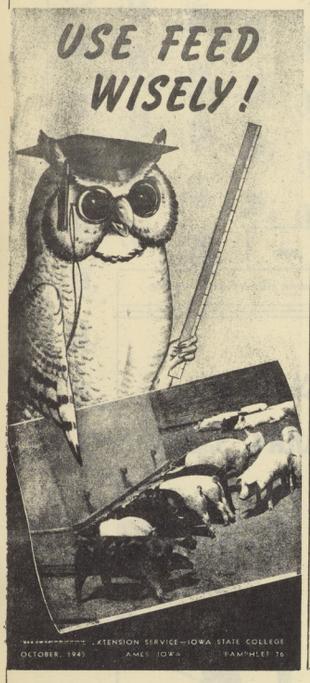
[illegible]istribution difficulties in 1943 made it necessary to place [illegible]pes of machines. This year one-half this number will be on [illegible], at present, only 31 are on the rationed list. The situation

[illegible]tion for 1944 was authorized at 80% of the 1940 output, and, [illegible]t year was above the average. The new distribution system [illegible]le line in removing as far as possible control over the [illegible]nery and is shaped to make it easier for farmers to obtain [illegible] Only the most essential types will continue to be rationed. [illegible]y program sets up three classes or schedules of machinery, [illegible]l reserve of about 20%, and expects to get the needed [illegible]d well ahead of the planting and harvesting season for 1944. [illegible] is being done to move machinery into the field of operation [illegible] greatest. It is expected that much of the pressure will be [illegible] increased production and simplified distribution system. [illegible] demand will not be filled by any means. The farmers them-[illegible]s to make the machines do the job.

[illegible]ee years farm machinery has been produced at about a one-third [illegible]e need to have a two years normal production to move into the [illegible]oduce only 80% of a normal supply, thus leaving us about two [illegible]achinery replacement program.

[illegible]inery situation, and those are our needs. What can the [illegible] the situation? It might be recommended that the production [illegible] this demand. That would be fine, but we all know it is

LIVESTOCK



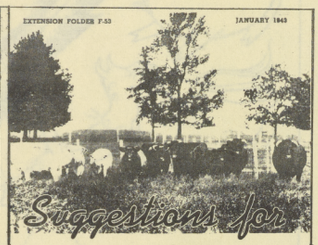
EXTENSION CIRCULAR No. 153 (REVISED) SEPTEMBER, 1943

COMMON AILMENTS AND FIRST AID TREATMENT OF LIVESTOCK

NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS
AGRICULTURAL EXTENSION SERVICE
A. B. FITE, Director.
STATE COLLEGE, NEW MEXICO

Cooperative Agricultural Extension Work with the U. S. Department of Agriculture. Acts of Congress of May 8 and June 30, 1914.

EXTENSION FOLDER F-53 JANUARY 1943



Suggestions for

Increased Beef Production

Good Cows
Good Pasture
Well-fed Calves

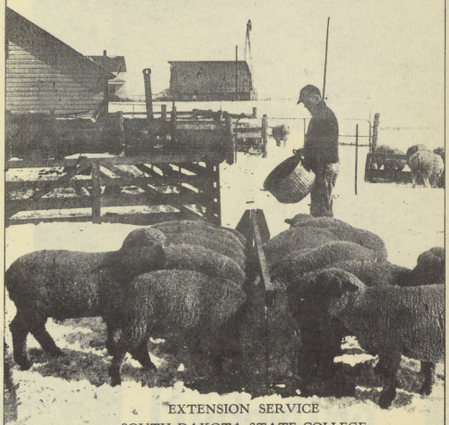
Prepared by G. A. Branaman and E. L. Benton
Department of Animal Husbandry

MICHIGAN STATE COLLEGE
EXTENSION DIVISION
EAST LANSING

Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director Extension Division. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

Extension Circular 398 April 1943

Feeding in WINTER



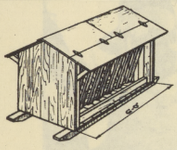
EXTENSION SERVICE
SOUTH DAKOTA STATE COLLEGE

Leaflet No. 219 (2nd Rev.) August, 1943

SELECTION, MANAGEMENT AND FEEDING OF BREEDING HOGS

These Gilts Were Used for the Production of Market Hogs. They Were Excellent in the Type and Quality Desired by Every Good Hog Farmer.

Purdue University
Department of Agricultural Extension
Lafayette, Indiana



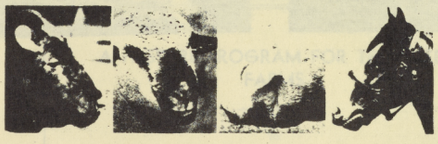
ENCLOSED FEEDER FOR LEGUME HAY (*Plan 123*). The cover can be built in various ways just so it provides good protection for the hay. Space the slats 5 inches apart. See further details on next page.

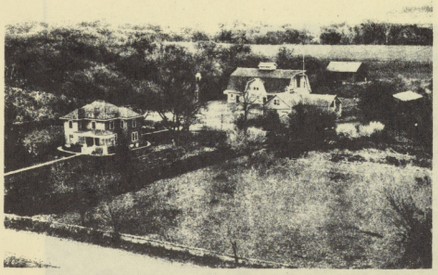
Purdue University Department of Agricultural Extension
Lafayette, Indiana

HOME-MADE HOG EQUIPMENT

Extension Bulletin 199 (Reprint Revised)
January, 1943

INSECTS ATTACKING KANSAS LIVESTOCK



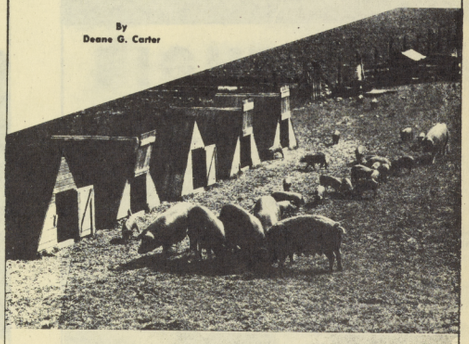


with suggestions for control

KANSAS STATE COLLEGE
EXTENSION SERVICE — MANHATTAN, KANSAS
CIRCULAR 160 MAY, 1943

LABOR-SAVING HOG EQUIPMENT

By
Deane G. Carter



Circular 554
UNIVERSITY OF ILLINOIS · COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS

24

LIVESTOCK

Feeding
in
WINTER

Increased
Beef Production

COMMON AILMENTS AND
FIRST AID TREATMENT
OF LIVESTOCK

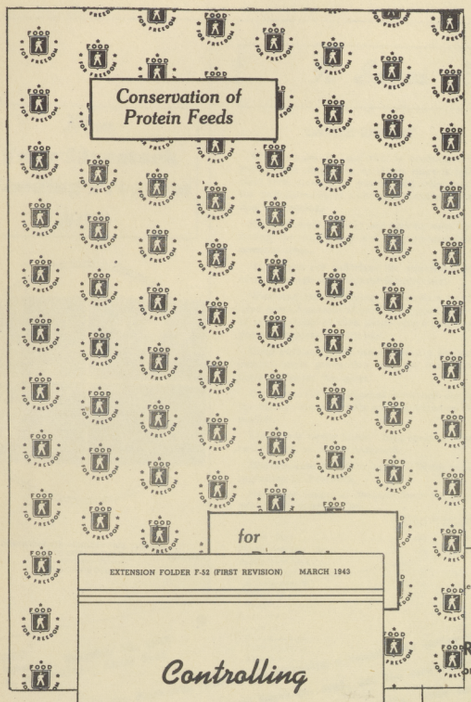
USE FEED
WISELY!

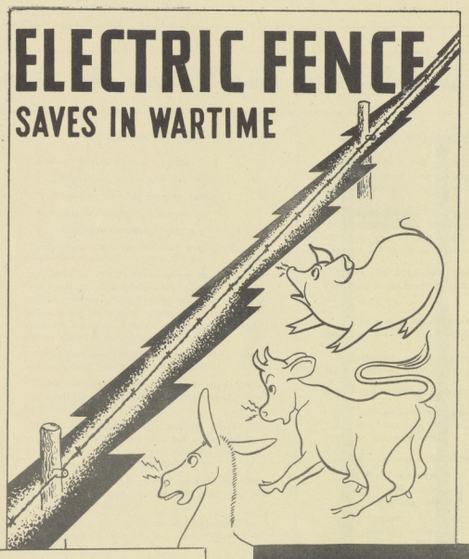
DIRECTION
MANAGEMENT AND
FEEDING OF
BREEDING HOGS

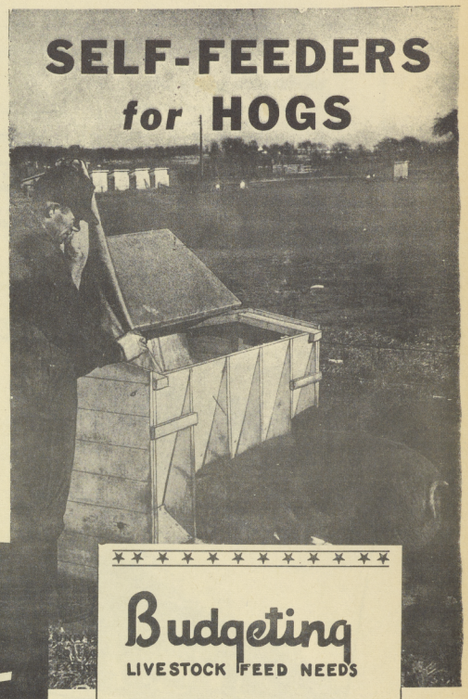
INSECTS ATTACKING
KANSAS LIVESTOCK
KANSAS STATE COLLEGE
EXTENSION SERVICE — MANHATTAN, KANSAS
CIRCULAR 180
MAY, 1943

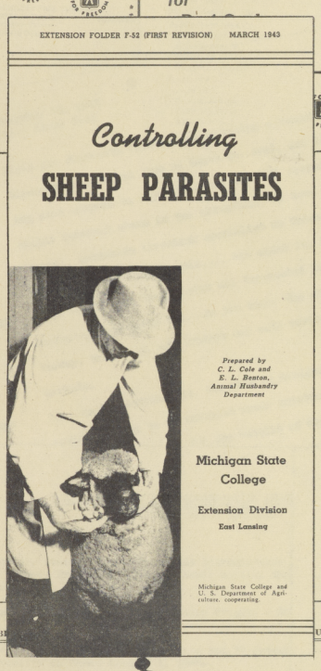
LABOR-SAVING
HOG EQUIPMENT

HOME-MADE HOG
EQUIPMENT

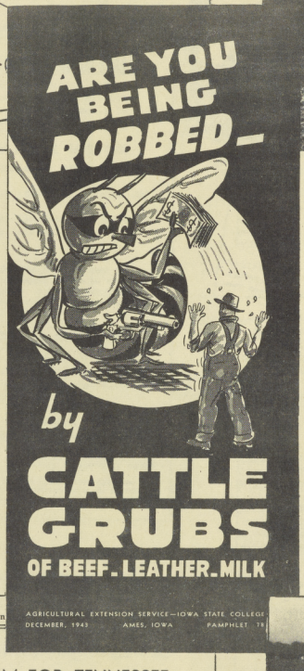

Conservation of
Protein Feeds
for

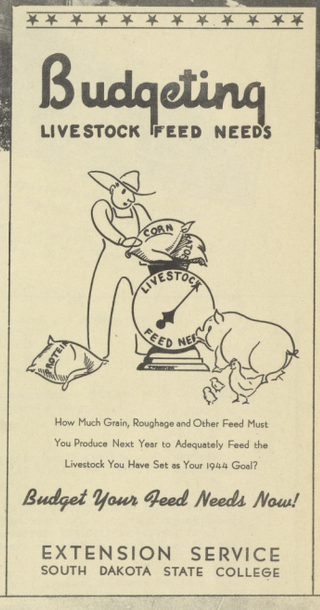

ELECTRIC FENCE
SAVES IN WARTIME

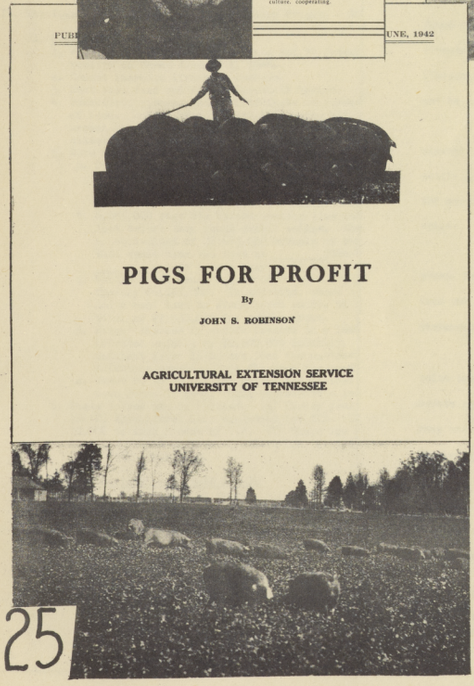

SELF-FEEDERS
for HOGS

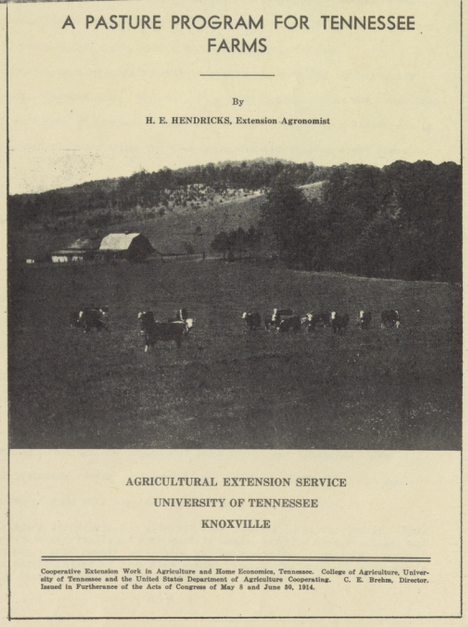

EXTENSION FOLDER F-52 (FIRST REVISION) MARCH 1943
Controlling
SHEEP PARASITES
Prepared by
C. L. Cole and
E. L. Benton,
Animal Husbandry
Department
Michigan State
College
Extension Division
East Lansing
Michigan State College and
U. S. Department of Agri-
culture, cooperating.

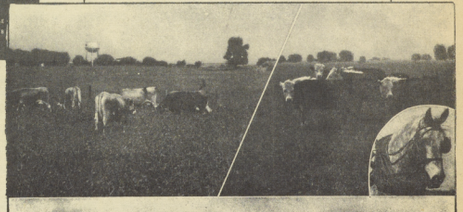
August, 1942
Raising Calves
on Limited Amounts of Milk
Purdue Extension Service
Agriculture Home Economics
Lafayette, Indiana

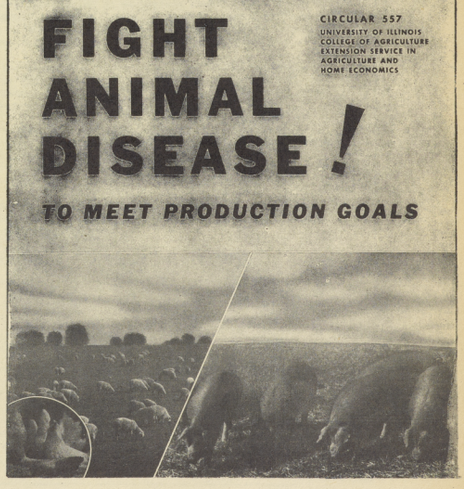

ARE YOU
BEING
ROBBED—
by
CATTLE
GRUBS
OF BEEF-LEATHER-MILK
AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
DECEMBER, 1943 AMES, IOWA


Budgeting
LIVESTOCK FEED NEEDS
CORN
LIVESTOCK
FEED NEEDS
How Much Grain, Roughage and Other Feed Must
You Produce Next Year to Adequately Feed the
Livestock You Have Set as Your 1944 Goal?
Budget Your Feed Needs Now!
EXTENSION SERVICE
SOUTH DAKOTA STATE COLLEGE

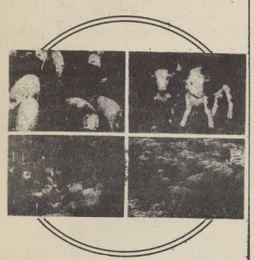

PIGS FOR PROFIT
By
JOHN S. ROBINSON
AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE


A PASTURE PROGRAM FOR TENNESSEE
FARMS
By
H. E. HENDRICKS, Extension Agronomist
AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE
KNOXVILLE
Cooperative Extension Work in Agriculture and Home Economics, Tennessee. College of Agriculture, Univer-
sity of Tennessee and the United States Department of Agriculture Cooperating. C. E. Brehm, Director.
Issued in Furtherance of the Acts of Congress of May 8 and June 30, 1914.




CIRCULAR 557
UNIVERSITY OF ILLINOIS
COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN
AGRICULTURE AND
HOME ECONOMICS
FIGHT
ANIMAL
DISEASE!
TO MEET PRODUCTION GOALS

Plan
Your Livestock Feeding Program
NOW



NORTH DAKOTA AGRICULTURAL COLLEGE
EXTENSION SERVICE
E. J. HAGLAND, Director
Fargo, North Dakota

It Saves Labor to Harvest Crops with Livestock

CATTLE RAISING

With low-priced land that is productive of pasture and roughages, or where there is sufficient farm acreage for pasture and other feeds, the establishment of additional breeding herds may be justified.

Calves "hurried along" will furnish more beef during the emergency and also prevent later accumulations.

Roughages are sufficient for wintering dry cows, although some legume is important.

Weanling calves gaining 30 pounds a month need about 5 pounds of grain with good hay, or 15 to 20 pounds of corn silage plus a pound of protein supplement with hay.

Good purebred bulls are a necessity for successful cattle production, and the better the cows the better the calves.

Calves should be dehorned sometime during the winter. Horned cattle are discounted on the market.

Lice cause heavy losses. Dip, spray or dust twice at 12- to 14-day intervals.

Warbles ruin hides for leather. Wash backs beginning in February.

Five years' results at Michigan State College in raising and fattening calves:

	Full-Fed Calves	Limited-Fed Calves
Age in days	386	490
Market weights, lb.	730	810
Yearly cow feed:		
Corn silage, lb.	3,600	3,600
Alfalfa hay, lb.	720	720
Straw, lb.	720	720
Summer pasture	"	"
Total calf feed		
Corn, lb.		1,210
Cottonseed meal, lb.		180
Corn silage, lb.		3,700
Alfalfa hay, lb.		60

PASTURE USES

Pasture possibilities for cattle:

1. Supporting a cow and calf herd.
2. Feed for growing stocker cattle.
3. Grass fattening of older cattle.
4. Roughages for grain feeding of steers.

Adequate stocking without over-grazing is essential for maximum production.

Alfalfa or alfalfa-brome grass makes excellent pasture throughout the season; or, the second-growth after haying may be used to supplement permanent pasture. Wild, coarse pastures are more satisfactory for cows nursing calves than for fattening cattle.

Grass fattening requires good quality pasture and an animal two years old or more.

Grass-fattened cattle produce carcasses grading medium or common, and consequently low in price.

Good and choice grade stocker calves and yearlings are very desirable for grain feeding, and under present conditions they are almost as high in price as when fattened.

Shrinkage in weight is very marked when pasture fails; therefore, feed should be supplied or the cattle sold at once.

Prices of grass cattle in Michigan are frequently lower in late fall and early winter than in early fall.

Feeding grain on grass saves labor as compared with dry lot

Less protein-rich and when ideal c grazing, shade and and cheaper than it

Buy feeder cattle to 60 days usually sho

PRODUCTION SUGGESTIONS

Demands for beef during the war seem likely to exceed probable supplies, and post-war demands for a few years will probably be large.

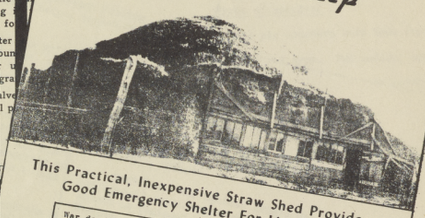
Feed supplies for the 1943-44 season will be much less than those for 1942-43. Farmers must be guided by feeds available and study conditions carefully for the future. National planning for an over-all program in the use of feed for all livestock will probably be announced. With the current small spread in price among grades, careful buying is necessary with discouragement of long feeding.

Seasonal price trends probably will be minimized as long as demand exceeds supply.

Feed as many cattle as possible.

Special Circular A-34 — July 1943

STRAW SHED
for Cattle and Sheep



This Practical, Inexpensive Straw Shed Provides Good Emergency Shelter For Livestock

War demands for lumber are so great that it is now practically impossible for North Dakota farms to obtain enough of the materials needed for wood buildings.

A straw shed can be set up quickly. ... lumber, rough poles and ... new hard-to-get ...

WDGO
Saturday, December 18, 1943
H. O. Harvrel - Larry Haag

HAAG: Eight New Minnesota farmers are marketing a record 1943 spring pig crop. Since the recent hog jam at South St. Paul, and the more rabbit hog market-ing plan adopted to regulate truck and rail arrivals, there has been consid-erable interest shown in the situation. We have as our guest today Henry Harvrel, extension livestock specialist at University Farm, who has some interesting comments to make.....how about it, Henry?

HARVREL: First of all, Mr. Haag, we're all interested in seeing how this new plan for marketing hogs works out. As you know, the plan calls for truck arrivals on Monday, Wednesday, and Fridays and rail arrivals on Monday and Thursday mornings.

HAAG: Yes, as I understand it, the plan is designed to allow the largest possible number of hogs to be marketed under existing conditions.

...the benefit of any farmer who still has hogs to sell.

...shipping of marketable hogs.

...handle them....

Bang ○ Tb

LIVESTOCK NEED MINERALS

Salt, calcium, phosphorus, iodine and iron are needed minerals not supplied in sufficient amounts in livestock feeds.

A SIMPLE MINERAL MIXTURE

FEED ALL MINERALS FREE-CHOICE

60 pounds bonemeal (Supplies calcium and phosphorus).
20 pounds ground limestone or hydrated lime (Supplies calcium).
20 pounds salt.

NOTE: For pregnant females add 1/2 ounce potassium iodide or sodium iodide to each 100 pounds of mixture. For suckling pigs add 2 ounces ferrous sulfate (copperas) to each 100 pounds of mixture.

OTHER MINERAL MIXTURES

Simple commercial mixtures which contain these NECESSARY minerals are satisfactory. Complex mixtures containing minerals other than these are not needed.

SALT: Feed salt free-choice to all farm animals IN ADDITION to the mineral mixture.

County Extension Agent

Cooperative Extension Work in Agriculture and Home Economics. U. S. Department of Agriculture, N. D. Agricultural College and County Commissioners cooperating.

1943 Livestock and Feed Balance for Montana
(with 1942 comparisons)
by E. P. Orcutt
Extension Livestock Specialist
August, 1943

...information was gathered in conjunction with the study on "Maximum Capacity of Montana Agriculture" - July, 1943.)

...tock and Feed Balance report for the state prepared ... Project of the same title. The first was completed ...le in limited supply.

...ion was gathered by Extension fieldmen in the form of ... county groups composed of agricultural planning boards, ...rs, committeemen, various U.S.D.A. employees, local ... county commissioners and certain other interested and

...r 1943 thus have local approval and have not been ...ussion of them in each county. Some obvious discrep-...hich should be corrected next winter in compiling the ...nces.

... terms of "animal months", arbitrarily based on the ...month of one beef cow, one milk cow, one horse, or five

...g resource of each county includes native range, seeded ...and stubble, and Forest and District permits. Many ...ll of these resources unchanged from 1942. The average ...ds were used and do not reflect the currently favorable

...as also inventoried on an average annual yield basis, ...ve supply is set up. Dryland counties showing a con-...fore in the dangerous position of being unable to accum-...ons any carry-over of winter feed for emergencies.

...ion was incomplete in 1942 so there are no comparisions ...or this year. Again average yields were used and in ...43 resource will probably far exceed the reported ...-than-average crop.

...o that only Big Horn and Blaine counties made feed ...irements. This omission could have serious consequences ...not considered. It must be remembered!

...5% balance, or any percentage in between the two, can ...tuition for the current feed year, May 1943 to May 1944. ... the following groups:

Shortage	Balance	Surplus
28	15	12
14	9	32
23	8	24
18	18	19
12	9	33

...ry satisfactorily emphasizes the importance, usefulness ...ivestock and Feed Balance study. A brief study of the ...ion of changes which have taken place over the state dur-...ates this.

...separate balance figures for the state as a whole is ... only of value in checking the trend of total livestoc ...pment. The county figures are the important ones and

LIVESTOCK AND FEED CONSERVATION PROG
OUTLINE FOR COUNTY MEETINGS

I. Call to order, statement of purpose and introductions ... Director (County Extension Director should mention tha... County Program)

II. The Iowa Livestock and Feed Conservation Program - Ex...

A. Need For This Program
1. Will have 5-10 percent less feed and 10 percen... poultry on farms January 1, 1944.
2. Cannot increase livestock numbers.
3. Must save feed and reduce livestock losses.
4. Parasites, disease and unthriftiness in livest... of feed. Losses by death are staggering but e... unseen are losses of feed and effort due to un... disease and parasites in livestock and poultry...
5. Here are a few examples of Iowa losses:
a. Over 100,000 Iowa milk cows are slaughtere... diseases such as mastitis, sterility, Bang... cows, reasonably well cared for, would hav... pounds of milk worth about 11¢ million dol...
b. 6,885,000 pigs die before weaning time and... lost before they reach market weights. Tha... equivalent of 22,623,000 bushels of cor... that would mean the loss of _____ pigs ... _____ lost before they reach market w...
c. Cattle grubs cause a loss of 247,900,000 ... imately $6,187,000. In addition, there i... and a meat loss on slaughtered cattle of ... total of $7,932,000 for cattle grubs.
d. Bangs' disease in cattle results in a los... infected animals or $2,500,000 annually. ... undulant fever in humans than the natural... infection acquired from diseased hogs and...
e. About 25 to 30 million chicks and another ... Iowa farms in 1943. This represents a lo...
6. These losses can be reduced. (a) Twenty years ... cattle slaughtered were condemned for T.B. I... 10,000 to find 1 case of T.B. (b) There was ... nodule infected casings at Albert Lea, Rimmes... 1943, over a year ago.

B. Outline National and State Set-Up
1. Program is national in scope
a. Organizations represented on national com... the National Poultry Advisory Council, th... Medical Association, the National Committ... work, the State Extension Services, the U... the U. S. Extension Service and the Natio... Association.
b. Publications of National Committee:
(1) Pork Production - available (3) Hog...
(2) Bangs' Disease (4) Swi...

FARM NEWS SERVICE
FOR GEORGIA DAILIES
RELEASE SUNDAY, JANUARY 9, 1944

MURRAY COUNTY FARMERS FOLLOWING METHODS DEMONSTRATED ON TEST FARM

CHATSWORTH, Ga., Jan. 8---J. C. Loughridge, Murray County farmer, has found that the logical results of better soils and more grass is more and better livestock. Since improving his soil through the use of triple superphosphate and limestone as a demonstration farmer, he has found sheep a very profitable enterprise, and he now has 17 sheep and 21 lambs with a registered Hampshire ram.

"My pastures have greater carrying capacity since adding the necessary minerals to the soil," he declared, "but it's even more important that the grass does cattle and sheep more good in developing bone and flesh. I can tell a difference in the growth of my stock after entering the test demonstration program eight years ago."

Where cattle once grazed on broomsedge and weeds, they now feed on blue grass, Dallis grass, lespedeza, white clover and red top. Permanent pastures carry from one to two cows per acre through the season. Loughridge has added 20 acres of permanent pasture since entering the demonstration program.

He is one of a group of 20-odd farmers in Murray County who are trying to solve some of their major agricultural problems. This group cooperates with the county agent in an effort to prevent soil and water loss and to restore fertility. They keep complete records of operations, and results can be spread to other farms. Similar groups of unit test demonstration farmers are active in many other Georgia counties.

The county agent and Mr. Loughridge have worked out rotations using soil building crops as lespedeza, vetch, crimson clover, Austrian winter peas and small grain. Thirty acres of land have been terraced to help hold the water.

Loughridge's leadership has affected many farmers in Murray County. This farm has been used to show results of corn variety tests, pasture demonstrations and livestock improvement. Most county tours stop at the Loughridge farm. Loughridge believes that the possibilities of farm development through the addition of minerals and legumes in the farm program are just beginning to be realized.

# # #

Facts from stories marked in this issue published in:
1. Kansas City Weekly Star; 2. The Farmer-Stockman Magazine;
3. The Daily Oklahoman; 4. The Tulsa World; 5. The Country Gentleman; 6. Press associations (AP, UP, INS). The number on the story indicates the outlet for the story.

Oklahoma Extension News

PUBLISHED MONTHLY AT THE OKLAHOMA AGRICULTURAL AND MECHANICAL COL... BY THE EXTENSION DIVISION
VOLUME XXIV STILLWATER, OKLAHOMA, NOVEMBER, 1943 NUMBER 11

Farmer Has Rain At Will

Sagebrush Proved Beef Enemy

Mowing Will Double Production Experiments Show

Sagebrush is the enemy of efficient beef production on thousands of acres of range land in the western parts of Oklahoma and Texas, based on experiments of the Southern Great Plains Field station at Woodward, Oklahoma. These experiments, carried on in cooperation with the Oklahoma A. and M. college experiment station, proved that beef production can be more than doubled where sagebrush has been mowed from grazing land for two successive years.

The Woodward experiments, under the direction of Dave Savage, senior agronomist at the station, were carried out in the following manner:

Sagebrush was mowed from ... pastures of 50 and 78 acres during June of 1941 and 1942. Animals grazed on these two pastures during 1943 showed a gain of 103.3 pounds per acre for a 174-day period beginning on April 11. Carrying capacity of these pastures was one animal each 3½ acres.

Where animals were grazed on 75-acre pastures infested by sagebrush, the gain in beef was 48.3 pound per acre over the 174-day period. And the carrying capacity of this sagebrush infested land was one animal for each 6.6 acres compared with one animal each 3½ acres on the pastures ... consecutive years.

Above are a few rows of th... Warsop (in photo) of Webbers F... Beginning in August he irrigate... for $2,500 in 1942. The beans t...

Below is the four-stage cen... Illinois river by Warsop to ir... this system he produced two ton... of the drouth.

Irrigation System Increases Bean Yie...

Ninety Tons of Beans Produced On 46 Acres

Farmers whose crops and ... suffer every time drouth s... should take a page from the b... Roy Warsop of Webbers Falls ... is able to make it rain, or ma... stop, when he wants to.

Black magic? Not at all. ... Warsop has 50 acres in Sequ... county at the mouth of the ... river where it empties into th... Kansas. During the past sum... drouth he produced two ton...

Winter Feeding

R. A. Cave, G. A. McDonald, Richard Heeren, John M. Ryan*

Things to Watch In Winter Feeding

Protein. During the summer livestock and poultry pasture on green grass which contains a large proportion of protein because it is green and growing. It also contains considerable water. In the winter, most animals have to get along largely on dry hay, fodder, straw and grain, all of which are low in protein. This immediately places the problem of supplying sufficient protein in winter right into the foreground.

Comfort. Lack of comfort is another factor which keeps livestock from making meat, giving milk and laying eggs in winter. Discomfort is caused by exposure, lack of bedding, drafts, dampness, etc. A certain amount of the feed they consume is ... Covering the tank, banking with manure and using a tankheater to keep freezing to a minimum will encourage them to drink more. Replenishing the water supply of hogs and poultry several times a day will enable them to drink what they should have.

Minerals. Buying mineral supplements when they are not needed is a waste of money. In general the only minerals likely to be short in ... mon salt, calc... areas, a sma... necessary to p... mixture for a ... limestone 40 ... parts, commo... ed, free cho... goiter, use io...

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, STATE OF ILLINOIS
College of Agriculture, University of Illinois
United States Department of Agriculture, Cooperating
Animal Husbandry Extension
University of Illinois
Urbana, Illinois

To Cooperators in Livestock Management Project:

Re: Livestock Management, No. 36, Winter 1943

One Bushel of Corn equals 2 bushels of oats in general livestock feeding. At present prices it pays to feed corn and to sell oats. The principal reason ... growing oats is to have a nurse crop for clovers or alfalfa.

Soft Corn was worth a little more than three-fourths the price pe... of hard corn for winter-fattening yearling steers, calves and hogs, and a l... than two-thirds the price of hard corn for fattening lambs in the latest sc... of the soft ears were visibly moldy, but the animals kep... tests. Two-thirds of the soft ears were visibly moldy, but the animals kept... Soft corn gave better results in winter than during warmer spring weather.

It Pays to Keep Stock Healthy. Every animal which becomes unthri... sick, or which dies, causes a loss to the owner. The most successful stock... the most careful to guard the health of their animals. They keep the quart... comfortable and sanitary, dispose of incurably diseased stock, vaccinate ag... tagious diseases, such as hog cholera, and buy only healthy animals to add ... herds.

Waste of Feed can be avoided. If grain is scattered around the t... the self-feeder, try some change in construction to induce the animals to e... waste. If hay gets underfoot, the rack can be remodeled to make it easier ... to eat the hay than to waste it. It is a wartime duty to avoid waste of fe...

Some Cattle Feeding calls for raising cattle on good pasture a... e or no grain until they are within 250 lbs. of desired mark... for 3 or 4 months. Medium-to-good cattle fed this way to ju... trying the good or "A" grade of beef which the Army wants. C... ensive to produce, and ceiling prices make it unprofitable... ine the cattle.

Those Cows. Winter is a good time to sell barren cows which ... e, and spring is a good time to sell those which need sca... ows, old cows and those which raised fall calves may be... ed into beef. A reduction in numbers to fit the permane... the tonnage of beef now and will save feed las... cked with beef cows.

re have no wo... of ...

COUNTY EXTENSION NEWS SERVICE
RELEASE: Dailies and Weeklies for Thursday

MAY FIGURE FEED REQUIREMENT FOR 225-POUND PORKER

...g producers wishing to figure their... ferred to the following summary by ... specialist. County Extension Dire... s in feeding, control of parasites ... iation in feed requirements from one ... requirements which hog producers sho... for production of a 225-pound hog. ... riod of about 120 days, the average ... protein supplement, 120 pounds of ...

...g suckled for 60 days, the sow and h... pounds supplement, and 4 pounds mine... additional 4 bushels of grain. The... grain, 100 pounds of protein suppl... If the sow raises 6 pigs, and all f... ed with 4.6 bushels of grain, 16.6 ... ound of mineral.

...bout 40 pounds each. The 185 addit... 12½ bushels of grain, 60 pounds of s... nds of minerals.

... pigs, and assuming no loss or prof... in, 76 pounds protein supplement, 2... minerals for each 225-pound hog. I... otein supplement would be about 50 ...

-30-

ELECTRIC PIG BROODERS

J. M. Fargo,* James Lacey, and H. D. Bruhn

PIGS farrowed in winter or early spring need extra protection from the cold. This may be provided by the use of electric pig brooders which can be built easily and operated economically.

One Pig in Three Lost

...e farrowed in the corn belt is lost before ... of this loss is due to neglect at ... loss is high because of neglect and ...er, a home-made bit of equipment, has ... in preventing early death losses. It is ... per litter may be raised when a brooder ...

Types of Brooders

...lectric pig brooders have been used success... ...at type. The radiant type may be ... overhead light or ...

No. 8 September 27, 1943

"THE PISTOL"

BANG, BANG, BANGS!!

War? Yes! War against Bang's Disease! Time for heifer-calf vaccination is nearly here. All cattlemen should be reminded. "Doc" Welch's leaflet, "Bang's Disease at a Glance," is available in quantity here at the Extension library. Every cattle breeder in Montana should have one of these leaflets in his mail during October. Tretsven says this applies also to dairy breeders. Please give your clerk mailing instructions NOW so that the job can be done on time and so that you will not have to think about it again.

There is also a new loss prevention circular by Marsh, "Prevention of Losses From Coccidiosis in Feed Lot Lambs", available for distribution. Agents in lamb-feeding counties have been furnished a roughly estimated number for their feeders. How many of you need more?

AN IDEA

How many agents have made arrangements with their local bankers to display bulletins and circulars ... bank lobbies? It sounds like a swell ... believe most bankers would be ... seasonal publications ... more effecti... sure ...

Purdue News Service
For Immediate Release

"THREE LITTLE PIGS"
O. K. IN STORY BOOK
BUT NOT ON FARM

LAFAYETTE, Ind., Jan.___---The "Three Little Pigs" were all right for a story-book litter; but in real life, successful hog production depends largely on raising an average of eight or more thrifty pigs per litter, says John Schwab, Purdue University extension hogman.

Here are some pointers that may help during the farrowing season.

Sows are due to farrow 112 to 114 days after the date of breeding. Three days to a week before farrowing starts, move individual houses and sows to land where no hogs have been kept for at least one year. This helps prevent pigs from becoming wormy.

Farrowing quarters six feet by eight feet are recommended. Clean these out thoroughly in advance of farrowing. When sows farrow in barns, let them exercise outside of the pens, starting the second day after farrowing.

It is a good practice to bed lightly with a rather chaffey material at farrowing time and several days thereafter. Cut straw or dry chaff keeps fairly level and often helps to prevent overlaying of pigs. Sows will handle easily if they are tame.

Dry, warm and clean farrowing pens will keep sows contented in late winter or early spring. When necessary in cold weather, bank houses or farrowing quarters with straw or corn fodder for comfort. A lantern or electric heater may be used for warmth in an individual hog house.

Additional information on feeding sows just after farrowing, rations for sows in the suckling period, feeding young pigs, diseases of pigs, and a number of other subjects is contained in Extension Bulletin 65, just released by Purdue. Copies of this bulletin, entitled "How to Handle the Brood Sow and Her Litter," may be obtained, free of charge, from any Indiana county agricultural extension office.

grk

OHIO FARM CONTINUITY

Cooperative Extension Work in Agriculture and Home Economics--State of Ohio, The Ohio State University and U. S. Department of Agriculture Cooperating--J. E. McClintock, Editor

PROGRAM_____ TIME_____ DATE_____ ANNOUNCER_____

FEED FOR SOWS

It's still a good idea to make brood sows walk for at least part of their feed. Exercise helps get rid of body poisons. And if the sun's out...the sows'll get some vitamin D from the sunshine.

Howard Davison says that the feed the sows walk after ought to include a half-a-pound per head per day of protein supplement... from now till farrowing time.

About all a baby pig amounts to is protein and minerals. So the extension swine specialist for Ohio State University suggests the extra protein supplement if it can be obtained.

And when it comes to minerals for the piggy sows...Davison recommends this mixture.....40 pounds of limestone...40 pounds of bone meal and 20 pounds of salt. The mixture can be fed free-choice. Or it can be mixed with the brood-sow ration at the rate of about two per cent.

Davison says sun-cured, green legume hay will really help when it comes to producing big, strong pigs. The hay can be fed in racks or ground and mixed with feed for sows.

Some farmers feed as high as 40 per cent hay in the ration. When this much hay is fed...the protein and minerals can be cut about in half. Davison says that where good hay is fed...it ought to make up at least 10 per cent of the sow feed...twenty per cent is even better.

1-21-44-Z

27

DAIRY

SILAGE

HIGH QUALITY FEED

FOR ANY SEASON

AT LOW COST

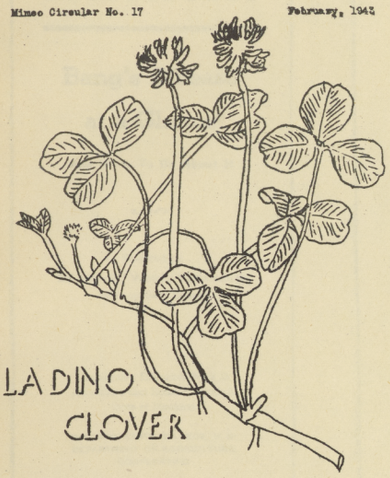
WARTIME PRODUCTION

★ calls for ★

All the good roughage cows will eat
A carefully balanced grain mixture
Grain fed according to milk yield
Sufficient rest between lactations
Abundant pasture thruout the season
Herds kept in a healthy condition

FEED ENOUGH FOR HEAVY PRODUCTION BUT DO NOT WASTE FEED

Mimeo Circular No. 17 February, 1942



LADINO CLOVER

By — C. E. Phillips
Forage Crop Specialist

Delaware's 8-Point

Milk Production

and

Livestock Conservation

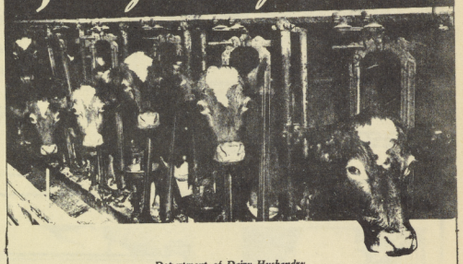
Program

For 1944

This wartime program is sponsored by the Delaware State Committee on Dairy Production and Livestock Conservation in cooperation with the Delaware Agricultural Extension Service, Agricultural Experiment Station, the State Board of Agriculture, the State Department of Vocational Agriculture, U.S.D.A. War Boards and the Dairy, Feed and Livestock Industry.

Special Circular *December, 1943*

Feeding the Dairy Herd in 1944



Department of Dairy Husbandry

WISCONSIN farmers are feeding more livestock and more poultry than ever before.

All of this livestock has to be fed with less feed available to farmers and local dealers. Yields of feed grain in 1943 were somewhat below the record-breaking year of 1942. While the quality of hay generally is better than in 1942, the yields of roughage this year were from six to seven per cent lower than a year ago.

This all means that the man who wishes to buy feeds this year will be competing for relatively smaller supplies than have been available the past several years.

Don't Waste or Hoard Feeds

THIS YEAR, with a shorter supply of concentrates locally available, it will be necessary to use them most efficiently.

Milk will be in strong demand and dairymen will want to produce every pound they can. In some herds it may be possible to save feed and produce as much milk by culling out some of the poorest cows and giving the rest more feed and better care.

Feed Grain According to Production

A GIVEN amount of grain will go farther if it is fed to each cow according to her production. Heavy producers need more grain than low producers.

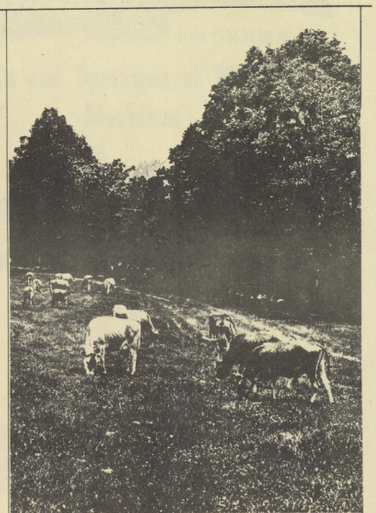
Extension Service of the College of Agriculture
The University of Wisconsin, Madison.

PROPER COOLING SAVES MILK

MORE MILK WANTED

— clean and COLD

FOOD FOR FREEDOM



Maintaining Health in the Dairy Herd

Agricultural Extension Service
University of Vermont and State Agricultural College
Burlington, Vermont June, 1940 Circular 104

CIRCULAR 274 MAY 1942

PURDUE UNIVERSITY • AGRICULTURAL EXPERIMENT STATION • LAFAYETTE, INDIANA

PRODUCING

RICH IN VITAMIN

28

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF MASSACHUSETTS

MASSACHUSETTS STATE COLLEGE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND COUNTY EXTENSION SERVICES
COOPERATING

EXTENSION SERVICE IN
AGRICULTURE
HOME ECONOMICS
4-H CLUB WORK

HELP AND MORE INFORMATION AVAILABLE

At all times—but more especially in these days—farmers are interested in using labor to better advantage.

The department of farm management at the Massachusetts State College in Amherst is conducting further studies to determine new and better methods for saving labor and doing work more easily.

If you wish information or personal help on simplifying your farm work, call upon your county agricultural agent. He is in a position to give assistance on this and all farm problems.

County Agricultural Agent

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Bang's Disease at a Glance

And What To Do About It

Prepared by
Dr. Howard Welch, Veterinarian
Montana State College

Cooperative Extension Work in
Agriculture and Home Economics.
State of Montana

MONTANA STATE COLLEGE, U. S.
DEPARTMENT OF AGRICULTURE
COOPERATING

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Extension Folder W-23 June, 1943

STEPPING UP WARTIME MILK PRODUCTION

Prepared by

W. H. Riddell and C. F. Rowe

GOOD COWS WELL FED
MEAN
PROFITABLE MILK PRODUCTION

Co-operative extension work in agriculture and home economics, the University of Arizona College of Agriculture and the U.S. Department of Agriculture co-operating

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EXTENSION FOLDER F-48 JANUARY 1943

To Keep 'em Milking— Keep 'em Fed!

HAY — GRAIN — SILAGE
GIVE BEST RESULTS WHEN FED LIBERALLY
TO DAIRY COWS

Prepared by J. C. Baltzer and J. C. Hays, Extension Dairymen and C. F. Huffman, Associate Professor of Dairy Husbandry

MICHIGAN STATE COLLEGE
EXTENSION DIVISION
EAST LANSING

Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director Extension Division. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

EXTENSION FOLDER F-36 (Revised) SEPTEMBER 1943

ANOTHER COW for $1 by Controlling Lice

Cows freed from lice will give 10 to 15% more milk.

Prepared by C. R. Dibble, Extension Specialist in Insect Control

MICHIGAN STATE COLLEGE
EXTENSION DIVISION
EAST LANSING

Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director Extension Division. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

FOOD PRODUCTION for WAR

WAR CIRCULAR № 1

Care and Operation of Milking Machines

UNIVERSITY OF IDAHO
COLLEGE OF AGRICULTURE

FOOD PRODUCTION for WAR

WAR CIRCULAR № 15

Check List of Practices for Dairymen

UNIVERSITY OF IDAHO
COLLEGE OF AGRICULTURE

FOOD PRODUCTION for WAR

WAR CIRCULAR № 25

Emergency Feeds for Dairy Cattle

DEPARTMENT OF DAIRY HUSBANDRY

STANDARD dairy rations for Idaho have been based, in the past, on feeding all the legume hay dairy cows will consume, with or without grain or other feed to balance the ration to the needs of the animal. With supplies of good hay below normal, and high in price, it is necessary and desirable in some instances to use other feeds in place of part of the hay.

Feeds which are frequently called "waste" or "by-products" in normal times are important factors at present in maintaining

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SUPPLEMENTING AND IMPROVING

DAIRY PASTURES

BY W. B. NEVENS

LOW MILK PRODUCTION in midsummer and early fall is a problem that many dairymen face every year. It is one that can be solved, and in this time of food shortages should be solved.

The decline in milk yields during these months is largely the result of too great dependence on poor pastures. Milk flow declines as the pastures decline in quality and quantity, and once having dropped, it is usually impossible to get it back to its former level. Thus serious losses result. By supplementing regular pastures with emergency pasture crops and barn feeding, as well as by managing the pastures better, a dairyman can prevent or greatly reduce these losses. This circular offers some specific suggestions along these lines.

CIRCULAR 553 UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS URBANA

N.S. 128

PLANS for ... QUALITY MILK

UTAH STATE AGRICULTURAL COLLEGE
EXTENSION SERVICE
LOGAN, UTAH

When selecting YOUR NEXT DAIRY SIRE

George R. Barrett, Department of Dairy Husbandry

IF you are going to be needing a new sire for your herd next fall or even the following winter or spring, now is the time to be thinking about him.

Careful breeders usually have their sires selected well in advance of the time when needed. This allows a great deal more time in which to select a good one and gives far better results than the practice of waiting until the bull is urgently needed before making a selection. If a breeder waits until he needs the bull for service, he is much less likely to look thoroughly into the bull's credentials and more likely to make a mistake in his selection.

① Select Sire A Year Before Needed

WITHOUT doubt, the animal surest to give good results in your herd is the good proved sire. If a bull has produced good offspring before, in most cases he will do it again, particularly if used on cows of the same bloodlines

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U.S. DEPARTMENT OF AGRICULTURE AND
STATE LAND-GRANT COLLEGES COOPERATING

SPRINGTIME REMINDERS FOR MOBILIZED DAIRY FARMERS

Equipment Care

1. Order repair parts now and condition machinery to avoid delay at seed and harvest time.
2. Keep machinery well lubricated. Grease guns may be obtained without priority.
3. Protect all electric motors against overloads and overheating by using time-delay fuses, such as "fustats" or "thermatrips". New motors are scarce and difficult to obtain.

Growing Roughage

1. Plan now for continuous pasture during summer and thus eliminate feeding green crops in the barn.
2. Use Ladino clover in seeding mixtures for pasture to insure an increased supply of grazing. It can be cut for hay if not needed for pasture.
3. Plan now to grow ample supplies of high-quality hay and silage for next winter's needs.
4. Buy extra poultry manure if possible. Make full use of manure to supplement the limited supplies of chemical nitrogen.

Saving Labor

1. Install milking machines, where possible, to economize on labor. The allotment for Massachusetts will go a long way towards meeting needs.
2. To save labor put lime and superphosphate on each load of manure and spread at one operation.
3. Discing instead of plowing land tilled last year will save time in preparing a good seed bed.
4. Combine operations by using a smoothing harrow behind a tractor-drawn disc.

MILK is Needed For the WAR EFFORT!

Milk is one of the most urgently needed foods. Liberal amounts are needed to provide protective substances, energy, minerals and quality proteins for the civilian population as well as for the armed forces.

Cows offer one of the most profitable means of converting pasture and roughages that are often otherwise wasted into human food.

No other project on the farm has given as consistently good returns over good years and bad years, high prices and low prices as has the dairy project.

1944 8-POINT MILK-PRODUCTION PROGRAM

What to Do! And Why!

1. Grow more legume hay, pasturage, and grain.
2. Fertilize to increase quantity and quality of feed.
3. Feed to avoid summer milk slump.
4. Feed cows liberally during their dry period.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U.S. DEPARTMENT OF AGRICULTURE AND
MASSACHUSETTS STATE COLLEGE COOPERATING

MEETING GRAIN EMERGENCY ON DAIRY FARMS

Due principally to the largest livestock numbers on record, grain supplies are short and indications are that they will be shorter.

Produce More Pasture and Roughage for Fall Feed

1. After cutting the first crop of hay, apply nitrogen fertilizer (200 lbs. Nitrate Soda or 100 lbs. Ammonium Nitrate per acre) to mowings in July to increase fall grazing and the rowen crop.
2. Apply same amounts nitrogen fertilizer in July to improved, rotated or other good pasture sods for extra fall grazing.
3. For fall pasture sow 2 bus. barley per acre in July or 2 bus. wheat per acre in August. Grass and legume seed mixture may be added to these for hay crop next year.
4. For early pasture next spring, graze the August seeded wheat or sow 2 bus. rye per acre in September. Grass and legumes may be seeded in rye as frost is coming out of ground next spring.

Economize in the Use of Grain

1. For cows on **good** pasture, feed little or no grain to low testers producing less than 20 to 25 lbs. of milk daily and to high testers producing less than 15 to 20 lbs. daily.
2. For cows on barn feed and receiving **good-quality** hay and silage, feed little or no grain to low testers producing less than 20 lbs. of milk daily and to high testers producing less than 15 lbs. daily.
3. For cows on **good** roughage or pasture do not feed grain until 6 weeks before freshening.
4. Feed well-grown heifers plenty of good-quality hay and silage or pasture but no grain from one year of age to two months before freshening.
5. Increase the consumption of roughage by feeding it more times daily than has been your practice. (Hay at least three times daily and silage twice.)
6. If you have both corn and grass silage, feed one in the morning and the other at night if practicable.
7. To supplement short pastures feed hay or silage instead of grain.

Other Suggestions

1. Have barns and silos full this fall. Harvest grass and legumes.
2. Feed and milk regularly. Provide plenty of s from drafts, cold rains, and storms.
3. If the grain situation becomes desperate, sell p reducing feeding rates.

8750

QUICK WASHING PROCEDURE

For The Farm Separator

Michigan State College
Dairy Extension

RAPID WASHING PROCEDURE† - 2 Minutes

Machine Must Be Clean Before Separation Is Started

1. **After all milk has left supply tank shut off power or stop turning.**
2. **Rinse supply tank with a cup of warm water, then shut off faucet.**
3. **Add one pint of warm water or skim milk directly over the float or enough to clear the cream from the machine.**
4. **Place a tablespoonful of wetting agent° in supply tank, then pour in a full pail of warm water (120° F). Stir to dissolve wetting agent. Let this run through the separator while the bowl is running down. Catch the water in a dish pan. While the solution is running from the machine, with a soft brush, brush the supply tank inside and out and the outside of the cream and skim milk spouts.**
5. **Dismantle the machine. The supply tank, spouts,**

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U.S. DEPARTMENT OF AGRICULTURE AND
MASSACHUSETTS STATE COLLEGE COOPERATING

SUMMER REMINDERS FOR MOBILIZED DAIRY FARMERS

Increasing and Conserving Roughage

In view of impending grain shortage, U.S.D.A. releases 10,000 tons of nitrogen fertilizers, mostly ammonium nitrate (30% nitrogen), for New England during June without restriction as to use.

1. Buy and use this material to boost roughage yields. Place orders with your regular Fertilizer Dealer at once.
2. Top-dress pastures, and each mowing as soon as first crop is removed, with 100 to 200 pounds of ammonium nitrate for summer grazing and a big second crop of hay.
3. Apply extra nitrogen for corn, millet and new seedings. Nitrogen is available also for side-dressing potatoes and vegetable crops.
4. Start haying early and make grass silage during poor haying weather. Grass and legumes with a high moisture content require preservatives. These are not always necessary if moisture content is just right but consult us for details.
5. Provide for next winter's bedding supply by cutting swale hay, over-ripe hay, and run-out fields.

Herd Health and Care

1. Guard against a summer slump in milk production by pasturing ladino clover, oats, millet and aftermaths on mowings. Start feeding hay or silage and increase grain feeding if pastures dry up.
2. Conserve proteins by feeding a 12 to 14 percent protein grain ration while cows are on good pasture or if being fed good clover or alfalfa hay.
3. Do not neglect dry cows and young cattle on pasture. If necessary, use

MORE MILK MEANS MORE FOOD FOR FREEDOM

Can Your Cows PRODUCE MORE MILK?

Every drop of milk your cows can produce is *needed*. There is not *enough* milk being produced now to meet war food requirements.

YOU WILL BE MONEY AHEAD, TOO!

Although feed prices are somewhat higher, records kept on over 400 cows in October by one North Dakota cow testing association show that the PRICE OF BUTTERFAT HAS ALSO INCREASED ENOUGH the past year so that dollars income over feed cost went up from $7.48 per cow in October to $8.76 per cow for October 1943.

HOW CAN MILK PRODUCTION BE INCREASED?

FEED ROUGHAGE LIBERALLY---

Roughages such as hay, corn fodder and silage are the cheapest feeds on the farm. You can sell these cheap feeds to good advantage through your milk cows. DURING THE DAY HAVE HAY AVAILABLE TO YOUR COWS IN THE BARN OR FROM A RACK OUTDOORS.

FEED GRAIN THIS WAY---

Feed grain according to each cow's milk production. In addition to the liberal feeding of roughage mentioned above, give your cows a grain ration consisting of two or more kinds of the farm grown grain you have on hand. So the cow that gives the most milk gets the most grain, *feed about 1 pound for each 4 pounds of milk.*

One quart measure of coarse-ground grain equals about 1 pound. One quart of milk weighs about 2 pounds. For example a cow that gives 32 pounds (16 qts.) of milk a day should be fed about 8 pounds (8 qts.) of grain.

Feeding grain on this basis makes it possible for a good cow to do her best--and it prevents wasting feed on a poor milker.

If your roughage is of poor quality, one-third of the grain mixture ought to be made up of linseed, cottonseed or soybean oilmeal. This mixture is recommended for high producing cows. Feed more grain if you cannot buy oilmeals.

THEN BE SURE TO---

1. Have a regular time for feeding and milking.
2. Provide plenty of water. Water at least twice a day if water is not available at all times.

MORE MILK MEANS MORE MONEY FOR YOU

Cooperative Extension Work in Agriculture and Home Economics, the North Dakota Agricultural College and the U. S. Department of Agriculture cooperating. Published and distributed in furtherance of the Act of Congress of May 8 and June 30, 1914.

OHIO FARM CONTINUITY

Cooperative Extension Work in Agriculture and Home Economics--State of Ohio,
The Ohio State University and U. S. Department of Agriculture Cooperating--J. E. McClintock, Editor

PROGRAM_____ TIME_____ DATE_____ ANNOUNCER_____

MILK FLOW

ple of extension dairy specialists at Ohio State
have just issued a new circular.
s what it says on the front of the circular.....
feeding and good management of dairy cattle in-
lk flow.
ou might be wondering why Charley Blackman and Ivan
ould want to write something like that right-smack-
front of a circular. They have good reasons.....
or milk is greater than ever before...and...dairy-
o can do their part by getting the most from their
the available feed.
be talking about what Blackman and McKellip have
whole lot more. It's important...mighty important..
number one item for 1944 farm production.
n to what the pair of dairy specialists suggest for
ers when it comes of figuring ahead.....Plan for
feed all summer...prepare to fill the silo...har-
quality hay...feed to prevent midsummer slump...
ws and heifers for freshening...keep the better cows
s -- but eliminate the loafers...breed to better
ep production records...use clean, sterile utensils
ilk promptly to avoid losses.

1-28-44-Z

SITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
M. F. Miller, *Director*

AR 283 Columbia, Mo. FEBRUARY, 1944

A Dairy Action Program for Missouri

cluding the Dairy Industry 8-Point Program for 1944 and 1945

THE DAIRY INDUSTRY 8-POINT PROGRAM

Grow more legume hay, pasturage, and grain.
Fertilize to increase quantity and quality of feed.
Feed to avoid summer milk slump.
Feed cows liberally during their dry period.
Keep as many cows as feed and labor permit.
Market whole milk whenever possible.
Produce good quality milk and avoid waste.
Breed for better herd replacements.

NERAL OBJECTIVE FOR DAIRYING IN MISSOURI

A. C. RAGSDALE

neral objective for dairying in Missouri is to secure the production of good quality milk and milk products con-ith good farm and dairy practice and by proper care and to make possible the utilization of this production so as imate its maximum nutritional possibilites.

ant points in the program may be outlined as follows:

alanced farm program. Plan and organize farm operations ir cattle numbers, labor and equipment fitted to your farm thus tend to assure maximum production.

ease your total feed supply. Adopt practices that improve the quality of crops. Fertilize—use a good crop rotation.

Develop year-round pastures by improving permanent pas-ures and providing suitable supplementary pastures.

30

COOPERATIVE EXTENSION WORK
in
AGRICULTURE AND HOME ECONOMICS
State of Louisiana

Louisiana State University and Agricultural and Mechanical College and United States Department of Agriculture Cooperating

Extension Service

The chart below was prepared by R. A. Hesson, Agronomist, and S. L. Sorenson, Jr., Pasture Specialist, to serve as a guide to help dairymen on hill soils of the coastal plains area in planning their grazing program so that scarcity of pasture forage can be reduced. The acreage recommendations are based on the assumptions that good practices of cultivation and fertilization will be followed in the production of the various crops. For further information on recommended cultural practices, you should contact your county agent.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
			Improved permanent pastures consisting of mixtures of clovers and grasses								
			Period of heavy grazing				Period of subsidiary light grazing				
			1½ acres of improved pasture needed for each cow to be grazed								
Oats or oats and vetch										Oats or oats and vetch	
		Plant 1/3 to ½ acre per cow - To make hay, remove cows by April 1. Grass cows on oats 2-3 hours daily									
					Sudan Grass						
Plant ½ to 1 acre per cow					Will average 60 cow days of grazing per acre						
					Lespedeza						
					½ acre per cow for grazing period						
						Alsyke Clover					
						¾ acre per cow					
						Sweet Potatoes					
					30 to 35 cow days of grazing per acre						
Velvet Beans		After Kudzu beans						ring the grazing period			
								iry cows			

COWS IN GOOD CONDITION
MEAN HIGHER PRODUCTION

Auburn, Ala.--Whether a cow produces a large flow of milk or not after freshening is determined largely by her condition when she calves. Many Alabama farmers make the costly mistake of allowing cows to get poor during the winter and as a result it takes two or three months during the spring to get the body weight back to normal.

Every dairy cow should be given a rest period of from six to eight weeks each year, points out C. E. Teague, extension dairyman. During these weeks she should be liberally fed so that she will weigh about 150 pounds more at calving time than she weighs in the middle of her lactation period. Plenty high quality hay is recommended and in addition it is advisable to provide her with some green feed such as oats, rye or white clover pasture if it is available. The amount of grain to be fed should be determined by her body condition. Usually

...out 16 per cent protein will be satis-

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Supplement to Farm Bureau News

COOPERATIVE BREEDING ASSOCIATIONS IN MAINE

Androscoggin Valley Artificial Breeding Association
Central Maine Artificial Breeding Association

Maine Dairymen Adopt New Method

Four years is a brief period in the history of the dairy industry in Maine. But during the past four years Maine dairymen have pioneered in one of the most far-reaching developments ever undertaken by a large group of breeders.

The new development is artificial insemination of dairy cattle, a method now proved to offer unquestioned advantages to the great majority of herd owners.

Cooperative artificial breeding in Maine began on September 1, 1939, with organization of the Central Maine Artificial Breeding Association, with headquarters in East Newport. This association had 180 members in 1939; by 1943 the membership had increased to 1000.

On September 15, 1940, a second association was organized to serve dairymen in the southern and western counties of the state. This group, the Androscoggin Valley Artificial Breeding Association, began operations in the area extending roughly 30 miles from the association's farm in Turner. This association had 550 members in 1940 and 1200 in 1943.

Encouraging results from the early work of these associations brought steady expansion. Three branch units have been added to the Androscoggin Valley Association, or AVABA as it is commonly known. One branch serves York county dairymen, another covers the area around Fryeburg, Oxford county, and the third serves portions of Franklin and Somerset counties remote from the headquarters of either association.

Associations Strengthened by Experience

Artificial breeding in Maine dairy herds has been developed on a sound basis over the period of four years. The steady increase in membership and in number of cows bred has been the result of continued cooperation of association directors, dairymen, farm bureau members, and the dairy specialists of the Maine Extension Service. Many other groups and individuals have contributed to the accumulation of technical skill and superior bulls now at the service of association members.

As a result, artificial breeding is now available throughout most of the state where dairying is of major importance. A total of 2200 dairymen are members of the associations, and of their cows bred artificially. Within have had 11,400 the area served by the associations is an even larger group of dairymen who have yet to adopt this new method of breeding.

NUMBER OF COWS BRED
ANDROSCOGGIN VALLEY ARTIFICIAL BREEDING ASSOCIATION
EACH SYMBOL REPRESENTS 1000 COWS

1941
1942
1943

NUMBER OF COWS BRED
CENTRAL MAINE ARTIFICIAL BREEDING ASSOCIATION
EACH SYMBOL REPRESENTS 1000 COWS

1940
1941
1942
1943

Superior Bulls Made

Perhaps the gr... breeding as organiz... superior bulls made... As this is written, 3... or leased by the as... East Newport and ... members of both as... is given over to pu... these bulls.

The bull selecti... deserve special men...

COOPERATIVE AGRICULTURAL EXTENSION WORK
UNITED STATES DEPARTMENT OF AGRICULTURE AND THE COLLEGE OF AGRICULTURE, UNIVERSITY OF TENNESSEE COOPERATING
AGRICULTURAL EXTENSION SERVICE
C. A. Brehm, DIRECTOR
KNOXVILLE, TENNESSEE

TENNESSEE FARM AND HOME NEWS

AGRICULTURAL EXTENSION SERVICE

FOR RELEASE

JANUARY 17, 1944

DAIRYMEN ASKED TO BOOST 1943 MILK RECORD

SIX POINT PROGRAM OUTLINED TO INCREASE PRODUCTION, LOWER COST

TO MEET TENNESSEE'S 1944 MILK PRODUCTION GOAL OF 2,200,000,000 POUNDS, OR 255,814,000 GALLONS, CALLS FOR AN INCREASE OVER THE RECORD PRODUCTION OF LAST YEAR, STATES C. A. HUTTON, EXTENSION DAIRYMAN, U-T COLLEGE OF AGRICULTURE.

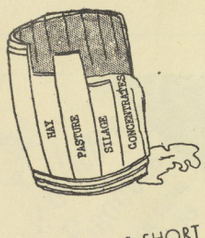
THE SIX-POINT 1944 TENNESSEE MILK PRODUCTION PROGRAM OUTLINES THE FOLLOWING WAYS TO INCREASE MILK PRODUCTION AND AT THE SAME TIME DECREASE THE COST:

1. UTILIZE FEED TO BEST ADVANTAGE. DO NOT KEEP MORE COWS THAN CAN BE WELL FED. CULL LOW PRODUCING UNPROFITABLE COWS TO CONSERVE FEED SUPPLY FOR THE BETTER PRODUCERS. FEED EACH COW ACCORDING TO HER ABILITY TO PRODUCE. PROVIDE PLENTY OF WATER - LACK OF A SUFFICIENT AMOUNT IS OFTEN THE C... OF LOW PRODUCTION.

2. S...

...R FEED. PROVIDE PLENTY OF GOOD LEGUME HAY,
...E AND PHOSPHATE TO PERMANENT PASTURES,
... Sow SUDAN GRASS TO SUPPLEM...
... Sow CRIMSON ...

"BETTER FEEDING" OF DAIRY COWS IS A DEFENSE ACTIVITY



WHICH STAVE IS SHORT IN YOUR DAIRY FEEDING PROGRAM ??

Prepared By
Agricultural Extension Service
of University of California
United States Department of Agriculture
and
County of Imperial, Cooperating
El Centro, California

...ws Service
...ate Release

COWS NEED FEED TO PRODUCE MILK

...E, Ind., Nov.___---"Bossy" can't be expected to fill the ...less she gets plenty of feed, advises J. H. Hilton, assist-...ief at the Agricultural Experiment Station at Purdue Univ-... that means that Indiana dairymen are faced with the problem ...t how to produce the most milk out of their available ... Hilton lists a few suggestions that may help:

... the unprofitable and diseased cows. Feed, labor ...re too valuable to waste on inefficient producers.

...ral amounts of the best roughage to the heaviest ... This will save in concentrates and get the greatest ... the roughage.

... the roughage fed with an efficient grain mixture ... to production, particularly to the heavier pro-... stages of lactation.

...ains fed to milking cows. About one-third of ... when it is fed unground.

...ing cows as comfortable as possible. See that they ..., comfortable stalls, an adequate water supply, ...barn on cold, disagreeable days. These factors make ... of feed and higher milk production.

... sanitation program. Keep the herd healthy; ...e a saboteur.

...adequate pasture program during 1944.

grk

FARM N...
FOR GE...
RELEASE

...MORE MILK NEEDED IN 1944, EXTENSION DAIRYMAN SAYS

ATHENS, Ga., Jan. 8---Milk and dairy products of all kinds wi... the greatest needs in 1944, Frank Fitch, dairyman for the Agricultural ... Service, said today, urging farm families to help in the production of m... cream, and thereby make a real contribution to the 1944 food production p...

"We should make every effort to get more milk from cows we now ... continued. "This can be done by better feeding and care. Cows that have ... hay---as much as they can eat---will give more milk. Regular feeding and m... about the same time each day will help. Cows that have clean, fresh water w... where they want it sometimes produce 10 percent more milk."

In addition to getting more milk from the cows on hand, some farms ... crease the number of cows, Fitch pointed out. This should be done when enough ... ture and feed, or at least enough pasture and hay, can be grown for them. An ... millet, seeded in May or June will produce lots of feed. An acre of lespedeza, ... son clover or kudzu will produce many gallons of milk.

The dairyman listed eight points to help Georgia farm families do this ... job. These are grow more legume hay, pasture and grain, fertilize to increase qu... tity and quality of feed, feed to avoid summer milk slump, feed cows well during ... period, keep as many cows as feed and labor will permit, take advantage of your ho... market, produce good quality milk---don't waste, and breed better cows for future.

# # #

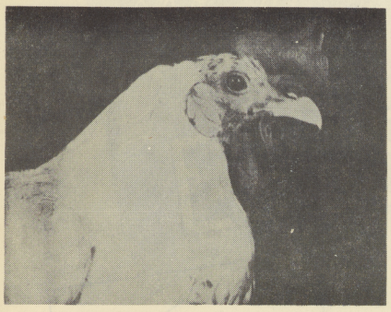
POULTRY

NAIL HERE

DON'T WASTE FEED ON LOAFERS

NAIL HERE

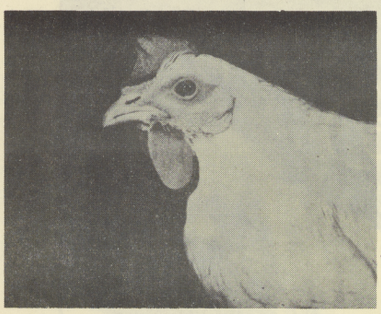
KEEP HER



LAYER

Comb—Large, Red. Beak—White

CULL HER



LOAFER

Comb—Shrunken, Pale. Beak—Yellow

Cull any hen flock laying less than 50%
Cull all pullets over 7 months old not laying

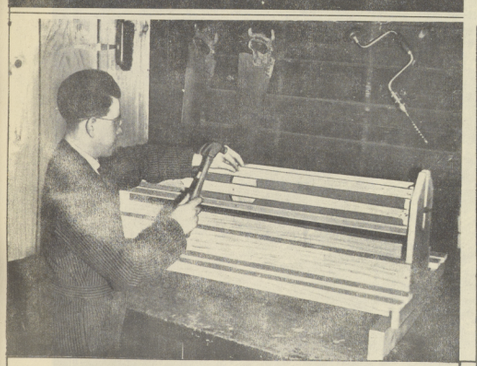
DEPARTMENT OF AGRICULTURAL EXTENSION
Purdue University Lafayette, Indiana

Range Shelters

For Indiana Pullets

Broilers, Roasters, Capons

Massachusetts State College Extension Service, Amherst
Leaflet No. 216 Issued April 1943

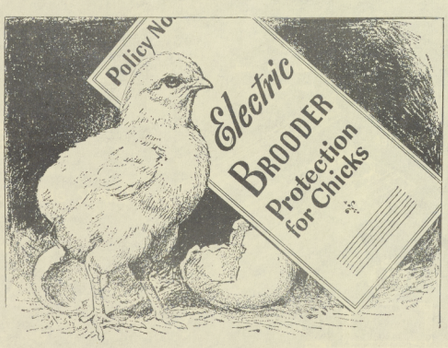


HOMEMADE EQUIPMENT FOR CHICK RAISING

By D. C. HENDERSON

Agricultural Extension Service
University of Vermont and State Agricultural College
Burlington, Vermont

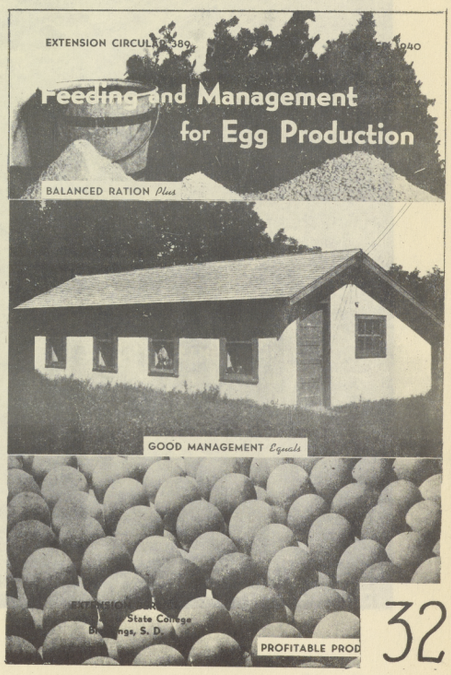
February, 1940 Circular 101



LIFE INSURANCE FOR BABY CHICKS

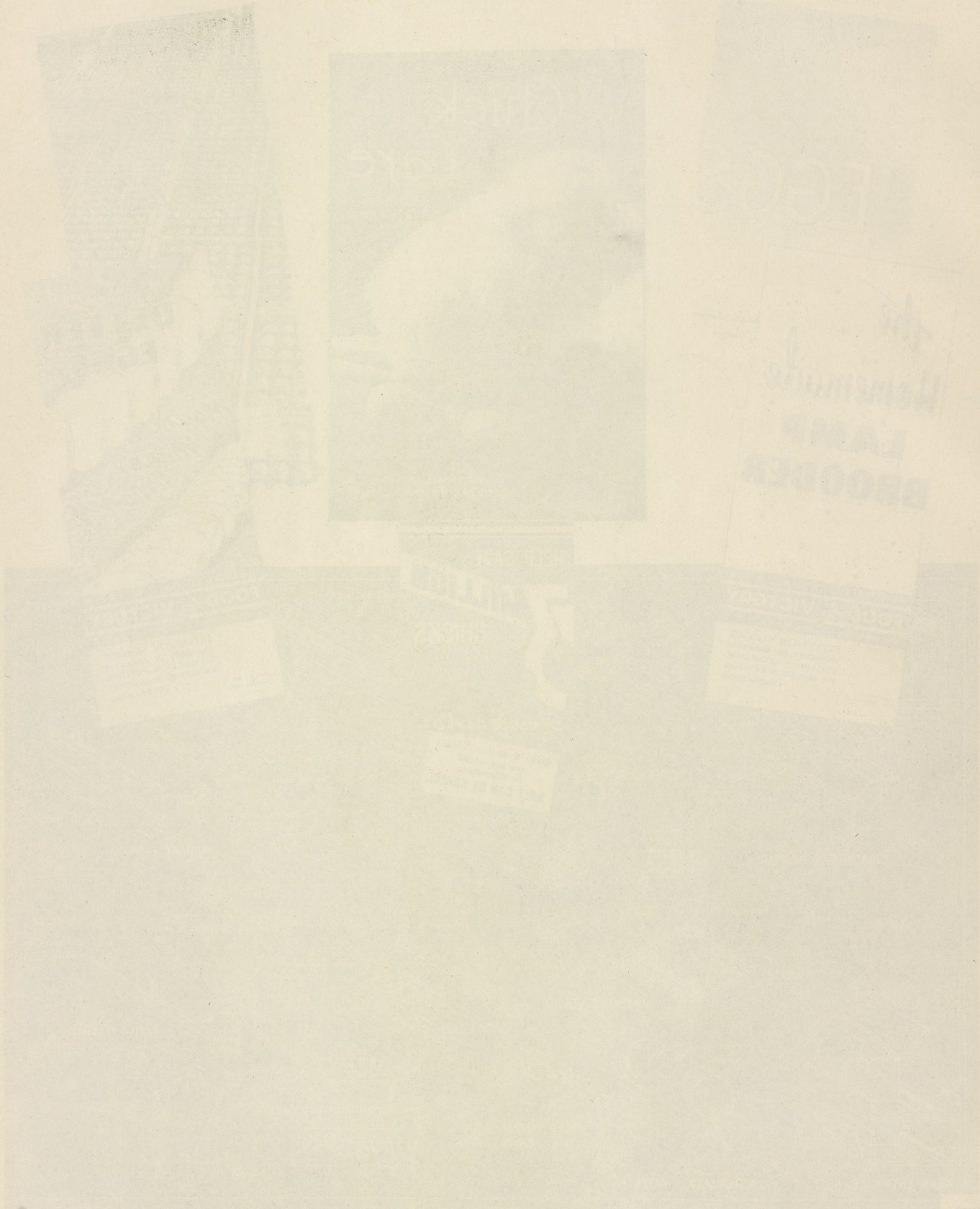
Practical Instructions for Building, Installing and Operating Homemade Electric Brooders

ISSUED BY
VIRGINIA AGRICULTURAL EXTENSION SERVICE
AND THE
VIRGINIA RURAL ELECTRIFICATION COMMITTEE



POULTRY

Let's Save EGGS
the Homemade LAMP BROODER
PRODUCE FOOD for VICTORY IN 1943
EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING
LEAFLET No. 54
Extension Circular 400
April 1943
Chick Care
His Life Is In Your Hands
EXTENSION SERVICE
SOUTH DAKOTA STATE COLLEGE
Profitable Poultry
BETTER EGGS Mean More Money
HELP SAVE 3 MILLION CHICKS
Simple as A.B.C.
Over 6 Million Chicks are lost yearly in Minnesota
HALF CAN BE SAVED!
UNIVERSITY OF MINNESOTA
Agricultural Extension Service
U. S. DEPARTMENT OF AGRICULTURE
PRODUCE FOOD for VICTORY IN 1943
EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING
LEAFLET NO. 38
(Revised, 1943)
SECTION
New egg-case cup flat
HOPPERS FOR SM
A, B, C
Adjustable height
Reel
This side open
For complete details see plan No. 77-741
SANITARY RUNWAY
TURKEY FEED HOPPER
SECTION
C
1/2" Mesh Hardware Cloth
WATERING STAND
Reel to rotate freely on bolt or nail
Adjustable reel height
If boards are not rain-proof cover with roll roofing or metal
Roof opens for refilling
RANGE FEEDER
For Complete Details see PLAN 77-725
Air-tight plug
Barrel
Faucet
Drinking Pan
REAR ENTRANCE NEST
AUTOMATIC WATERER
FEED HOPPER FOR LAYING HENS
For Complete Details See PLAN No. 77-721B
SECTION
SECTION



FARMERS ADVISED BUY
ALABAMA HATCHED CHICKS

Auburn, Ala.--Farmers planning to increase their poultry flocks this year are urged to use U. S. - Ala. approved hatcheries when buying baby chicks. Chicks imported from other states are usually chill or dead from starvation when they arrive.

Sanitation is one of the most important factors to keep in mind i starting baby chicks, says John Ivey, extension poultryman. He suggests that farmers clean the brooder house thoroughly with a solution of 13 ounces lye dissolved in 12 to 15 gallons of hot water. Rinse house with cold water. It is important also that the house be warm when the chicks arrive. At least 72 hours before chicks arrive bring the house to the correct brooding temperature.

If coops are used in brooding they should be isolated from olde birds to prevent spread of diseases.

OHIO FARM CONTINUITY

Cooperative Extension Work in Agriculture and Home Economics--State of Ohio, The Ohio State University and U. S. Department of Agriculture Cooperating--J. E. McCl

PROGRAM TIME DATE ANNOUNCER

POULTRY PA

Good poultry pastures can accomplish at least two results for any farmer.....they'll conserve feed a produce pullets at less cost.

C. M. Ferguson says it's not too early to start for poultry pastures. He claims that after pullets are six or seven weeks old...they can be successfully grown on grain and pasture in case it's hard to get growing mashes. Pullets that grow on grain and pasture may take a couple of weeks longer coming into production than those receiving grain and growing mash. But they'll produce just as good...once they get started.

Now the extension poultry specialist at Ohio State University says the birds'll have to have tender pasture during the whole season. They just won't do right on dried up pastures or and August. So Ferguson says most farmers houses out on clover and

yer when it asture mixtures

h meadow land e for early clipped...will of the summer.

SUBSTITUTE FEEDS

Some common ingredients of poultry feeds are almost unobtainable; others are too expensive to use in poultry rations. Because of these shortages poultrymen are having to use substitute feeds or reformulate some of their rations entirely.

Meat scrap, tankage, fish meal, dried skimmilk and dried buttermilk, fish-liver oils, and alfalfa-leaf meal are now either difficult or impossible to obtain. There is some indication that supplies of dried milk are increasing; this is fortunate because it is the best single source of both protein and riboflavin.

Liquid skimmilk will solve the problem of many of these shortages. Poultrymen having plenty of skimmilk can make a very good ration, especially for layers, from milk, grain, and alfalfa.

Soybean meal is being produced in large quantities, and where available can be used as a partial substitute for meat scrap and fish meal. Certain vitamins and minerals which are not in soybean meal must be added to the ration if soybean meal is used as the chief source of protein. (*Both rations given on page 3 supply the necessary vitamins and minerals.*)

Vitamin-A-and-D feeding oils are replacing straight fish-liver oils in part. Enough D-activated animal sterols are available so that commercial feed manufacturers need no longer depend on fish-liver oils for their supply of vitamin D.

An excellent alfalfa meal can be made by grinding carefully cured second- or third-cutting alfalfa, and many poultrymen will find it an advantage to do this. Meal of this kind is a good source of both vitamin A and riboflavin. It is usually better than hay for chickens because chickens often will not eat enough of the hay to get all the vitamin A they need.

FF-3 (December, 1942) 165M—25264

cial Circular (Please Post for Daily Reference) November, 1943

FEED GOOD HENS ALL THEY WILL EAT

Gerald E. Annin

WHY HENS that can do well at turning feed into eggs will lay on full feed -- hens that don't will turn feed into fat instead. Cull poor layers immediately.

- A hen is not like a water faucet--to be turned on and off. Her egg production cannot be raised or lowered just by regulating the amount of her feed. A hen either lays at the peak of her ability on full feed, or she quits entirely on less than full feed.
- Hens must be in good condition to lay. Most of the feed hens eat is used to keep them in good condition. That amounts to about fifteen pounds of feed a day for every hundred hens. The small amount of extra feed that they eat over this fifteen pounds is used for producing eggs.
- Good hens must be fed all they can eat of a good ration for them to lay. When hens don't lay on full feed it's time to cull them out and give the feed to those that can produce eggs from the feed they eat.

HOW HAVE a twelve foot mash hopper for every hundred hens. When hens can eat from both sides, they have the twenty-four feet of feeder space they need. If there are timid hens that do not dare come down off the roosts at feeding time, then a feeder placed on the roosts makes it possible for them to eat.

- Keep the hopper filled. This means to fill the hopper not over two-thirds of the top. When hoppers are filled brim full about one-third is pushed over the top and wasted.

ens cannot eat easily when the feeder is very low on mash. It should than one-third full at all times.

edges of the hopper. This prevents the on and wasting it.

may be fed on

PURDUE UNIVERSITY
FOOD FOR FREEDOM RELEASE 19

Save Labor in the Hen House with Deep, Built-up Litter

By Joe W. Sicer and L. A. Wilhelm

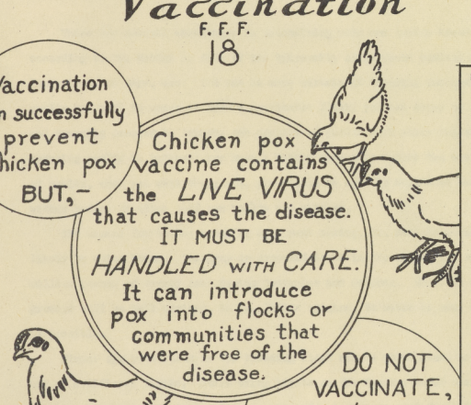
Pitfalls of Vaccination

F. F. F.
18

Vaccination can successfully prevent chicken pox BUT,-

Chicken pox vaccine contains the *LIVE VIRUS* that causes the disease. IT MUST BE *HANDLED WITH CARE.* It can introduce pox into flocks or communities that were free of the disease.

DO NOT VACCINATE, *unless* chicken pox was in the flock or in the community within the past few years.



PURDUE UNIVERSITY
Department of Agricultural Extension
Lafayette, Indiana.

Special Circular A-83 August 1942

STRAW HOUSE for POULTRY

An Emergency Structure To Provide Temporary Shelter For The Farm Flock

1. Poultry house of the size illustrated in this circular has inside dimensions 20 feet by 20 feet. The straw walls on three sides are 4 feet thick. Straw inside walls should be well-packed. This size house will provide a temporary home for 200 dual purpose hens or 125 hens of smaller breeds.
2. About 1 square foot of glass area is needed for each 12 to 14 square feet of floor area. Thirty-two panes 10 x 12-inch glass should provide enough light. The windows should be either sliding, or better, removable so they can be taken out in summer. Muslin windows should be open as much as weather conditions will permit on sunny days. For this reason, all muslin windows should be constructed so they will slide up and down to permit them to be opened when the sun is bright, even in cold weather.
3. Provide muslin (cotton) windows to insure adequate ventilation. Two muslin windows, 2 feet by 2 feet are adequate. Cover windows and cotton fronts on the outside with regular 1 inch chick wire netting to keep out sparrows.
4. The front wall can be sided both inside and outside with used shiplap or drop siding. To make this poultry house more weatherproof, the front should be covered with building paper or tar paper before putting on the inside siding. Straw packed between the boards will give additional needed insulation.

The North Dakota Agricultural College
EXTENSION SERVICE
E. J. Haslerud, Director
Fargo, North Dakota

FARM NEWS SERVICE
FOR GEORGIA DAILIES
RELEASE SUNDAY, OCTOBER 17, 1943

FROM AGRICULTURAL EXTENSION SERVICE
O. B. COPELAND, EDITOR
ATHENS, GEORGIA

HOMEMADE BROODING UNIT PROVES SUCCESSFUL IN GEORGIA

ATHENS, Ga., Oct. 16---A homemade brooding unit recommended by the Georgia Agricultural Extension Service has found a definite and seemingly permanent oultry world in Georgia, Catherine V, Wood, assistant poultry special- tension Service, said today. She estimated that there are at least se brooders for operation in Georgia.

e Extension Service published and has distributed 120,000 copies of a g plans for building and operating this brooder.

e brooder is easily built and inexpensive, Miss Wood pointed out. It little space and is ideal for the small backyard poultryman. Reports that numbers of farm and city people have raised 100 chicks in this o mortalities.

ere are many brooding units wherever they are used, Miss Wood said. re made because individuals built the brooder as a hobby, then made ich added some conveniences, but also expenses.

here is probably less disease among chickens grown in this type brooder ," the poultry specialist said. "If directions are followed and t clean there is little danger of trouble if good quality chicks are y a few cases of coccidiosis have been reported to the Extension

atisfy requests made for using electric light bulbs as source of a kerosene lamp, a plan was worked out using two 100-watt bulbs fleeters and heat controlled by a wafer thermostat. Unless a thermo- e cost of electricity runs much higher than kerosene. Instructions unit are given in Extension Circular Number 481, which is free to orgia.

* * *

FARM FLOCK RECORD KEEPING ANALYSIS

By

C. E. Rohde

The farm flock cooperators had an average of 231 hens for the month of November. The commercial cooperators had an average of 788 hens. The average production for the farm flocks was 7.85 eggs per hen and for the commercial flocks it was 9.32 eggs per hen.

The income over feed cost for the farm flocks was $34.05 and for the commercial flocks it was $137.66.

November 1943

Year 1943	No. of flocks	Av. No. hens per farm	Av. No. eggs per hen	Egg income per farm	Fowl income per farm	Food cost per farm	Income over food cost	Food cost per doz. eggs	Av. sale price per doz. eggs
Nov.	61	231	7.85	$64.87	$10.41	$41.23	$34.05	.27	.43
Comm. Flocks	10	788	9.32	$236.32	$46.15	$144.81	$137.66	.24	.39
6 Year Average	94	239	7.11	$35.54	$4.60	$23.03	$17.11	.18	.27

POULTRY CALENDAR RECORD KEEPERS

Year 1943	No. of flocks	Av. No. hens per farm	Av. No. eggs per hen	Egg income per farm	Fowl income	Expense Income
Nov.	79	218				

LOUISIANA STATE UNIVERSITY
BATON ROUGE, LA.
AGRICULTURAL EXTENSION DIVISION
H. C. SANDERS, DIRECTOR

COOPERATIVE AGRICULTURAL EXTENSION WORK (ACTS OF MAY AND JUNE 30, 1914)

EXTENSION PRESS SERVICE
EDITOR
MARJORIE S. ARBOUR

RELEASED FREE

University Station, Baton Rouge, Louisiana, January, 1944.--Sharpen your "tomahawks" and get ready to cull the non-profitable chickens from your flock, advises _____, agent of _____ parish.

As most Louisiana flock owners can cull out 10 per cent of the laying hens and pullets and not decrease egg production, it is both wise and profitable to cull the laying flock constantly, Agent _____ says. Weak and runty birds consume feed and do not contribute anything toward the food program until sold for meat.

"Culling will not only save the feed which the poorest 10 per cent of the birds would eat but it will salvage much poultry meat which would otherwise be lost through mortality. Moreover, the good hens left in the flock will have more room and more and better feed for maximum and more profitable egg production," the agent explains.

...hens showing symptoms of blindness and paralysis, and old, undersized hens ...be culled from the flock. Poultrymen should watch ...kled skin and sunken eye,

#451213

TURKEY GROWERS ARE ADVISED
TO HAVE OWN BREEDING FLOCKS

There are several advantages in maintaining your own turkey breeding flock, according to Dr. Morley A. Jull of the University of Maryland poultry department. Among them, he says, are: You can be more certain of securing the quality of poults you need in order to have a profitable flock; you can carry on a selection and breeding program to improve the quality of poults each year; the cash cost of securing poults is reduced; you have a better chance to secure the desired number of poults, when you want them; and, you should be able to sell some hatching eggs, either before or after your own poults are hatched.

The demand for turkey hatching eggs next spring, Dr. Jull believes, will likely be quite heavy. The Army is expected to be in the market for several million pounds of turkey meat during September and October. Maryland turkey growers will be well advised, in Dr. Jull's opinion, to hatch as many early turkey ...as possible.

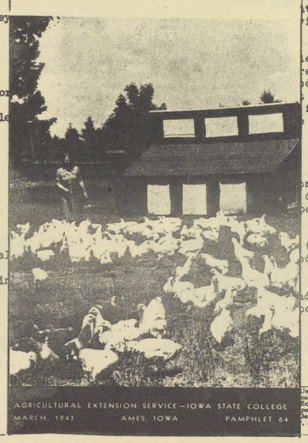
Winter egg production in the breeding stock can be stimulated, he says, by use of artificial lights. Start using lights on the females about one month befor... hatching eggs are wanted, he advises. In order to secure good fertility, the male ...should be lighted about one month before the females are lighted.

###.

While some farmers complain of the damage done to crops by birds and game, conservationists point out that wildlife can be of real value, furnishing many farm families with recreation and a variety of tasty and nutritive foods—especial... important in these days of food rationing. In addition, there is the reduction i... populations of destructive insects.

###

Wartime
POULTRY
Guide



AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
MARCH, 1943 AMES, IOWA PAMPHLET 64

Wanted: 48,000,000 More Eggs in '42

YOUR FARM CAN HELP!

AS America settles itself to all-out production for victory, agriculture is in the front lines.

We are engaged in producing the rock bottom essential of victory — food. Without our production, there can be no other production. Because of the great food value of eggs, our nation will need more eggs in 1942 than ever before in history. We must have 10 percent more than we produced in 1941, and in Massachusetts that means we must produce about 41,500,000 dozen.

Today's slogans for the nation's industries working for victory are "Keep 'Em Flying," and "Keep 'Em Rolling." For the poultry industry our slogan should be "Keep 'Em Laying."

As we open the throttle on our agricultural production machine, we are producing food for three main purposes: First, for the American people, 130 million strong, who have more money to spend for food than they have had in years; second, for the British, third, for the stockpiles or reserves to be used, after Hitler and his henchmen are defeated, to feed the people he has impoverished. We are producing food to win the war and to write the peace.

The Massachusetts poultry industry has met its quota for production to date, and if the feed-egg ratio continues favorable we have no fear about the increase needed for 1942.

Adopt a feeding, housing, lighting, management, and culling program that will get every possible egg from your flock.

Keep your poultry plant operating at full capacity.

Hatch broods of fall and winter chicks in addition to the regular season hatches.

Raise an extra 10 percent of pullets to sell or to house in temporary quarters.

Carry a month's feed supply.

Order needed supplies and repairs early.

Kill all rats.

Protect the quality of the eggs you produce.

Reduce your indebtedness.

Save labor in all places possible.

NOW is the time to make your plans for 1942. Make your expansion through efficiency in management and temporary investments. Make few permanent investments that cannot be paid for during the present emergency. Permanent expansions that will give the industry large surpluses of eggs after the war are to be guarded against. They are unsound investments.

We can feed our flocks better, manage them better, use a better artificial light program, and get many extra eggs from them this year.

You may want to have a hatch or two of early pullets which can be forced for production on range. A cheap shelter with a roof, roosts, feeders, waterers, and nests will be all the equipment needed. This flock can be sold for meat in the fall when the birds molt.

You can save labor by using a deep litter which will not require changing all winter. About once a month add to the present litter on the floor, building it up to 5 or 6 inches. Dry litter and clean nesting material will be a great help in producing more clean and salable eggs.

Protect eggs from heat losses in the summer and sell them twice a week to prevent deterioration.

"FOOD WILL WIN THE WAR AND WRITE THE PEACE"

...CULTURAL EXTENSION WORK
...College of Agriculture of the
...University of Maine and the
...United States Department of Agriculture
...Cooperating

EXTENSION SERVICE
January 28, 1944

TIMELY TOPICS FOR POULTRYMEN

BROODER COAL: Nearly three-fourths of the six million chicks raised annually in Maine are brooded under coal burning stoves. These stoves require chestnut anthracite.

War Regulation No. 5 of the Solid Fuels Administration gives poultrymen a priority on coal for brooding purposes.

To secure the preference in delivery provided by this regulation the poultryman must furnish the dealer with a written statement, in duplicate,

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
COLLEGE OF AGRICULTURE, WEST VIRGINIA UNIVERSITY, AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

Agricultural News Service

Better Farming - Better Marketing - Better Living

Exclusive to W. Va. Weeklies — Release Week of December 20-25

LAYERS NEED EXTRA
ATTENTION IN COLD
WEATHER, SAYS HYRE

Extra Grain, Warm Water, and
Comfortable Houses Are
Aids in Production

When the temperature drops below freezing, extra care and attention are needed ...keep the laying flock producing at a good rate, advises H. N. Hyre, Extension ...ltryman at West Virginia University.

Hens should have more grain during cold weather, he explains, for extra grain ...nceded to help keep the body warm. The birds should have all the grain that they ...l eat, late in the afternoon just before going to roost. They should also be ...en a light feed of grain in the mornings, the poultryman recommends. During cold ...ther the grain intake should be 14 to 16 pounds per day for each 100 hens that are ...ing 50 percent or better. Laying mash should be available at all times.

In order to get the flock to eat and lay, plenty of fresh water should be avail... ...e, Hyre says. During extremely cold weather warm water should be added two or ...ee times daily, unless a water warmer is used. This will help to promote egg ...duction. Hens will not drink enough water when it is ice-cold. Neither can they ... the water if the drinking fountains are allowed to freeze over. In order to keep ...feed consumption and egg production, water consumption must also be encouraged, ... poultry specialist asserts.

Keep Poultry Houses Warm

The laying house should be kept as warm and comfortable as possible, the Exten... ...n poultryman suggests. Some poultry houses are colder than they otherwise would ...due to the fact that metal or galvanized roofing is used. When metal roofing is ...osed to the inside of the house cold damp houses are usually the result.

Such conditions can be corrected, Mr. Hyre says, by ceiling the underneath side ... the rafters with insulating board or lumber. Even ordinary cardboard could be ...d, he suggests, and would be much better than to allow the metal to be exposed.

While metal roofs are good, since they last much longer and do not leak as ...dily as asphalt roofing, it should be recommended that the metal should not be ...osed to the inside of the house, Hyre reminds.

---hmh/krb---

...niversity,
...culture, Forestry,
...Economics
...partment Station,
...ean and Director
... Agricultural Editor

Agricultural Extension Service
J. O. Knapp, Director
Prepared and Distributed
In Furtherance of Acts of Congress
of May 8 and June 30, 1914

INFORMATION SERVICE
Walter C. Schnoor, Extension Editor
Joseph F. Silsbaugh, Assistant
Helen L. Champbell, Assistant
Leighton G. Watson, (A.C.P.)

TRUCK AND

CIRCULAR BULLETIN 188

JUNE 1943

Essentials of BLUEBERRY CULTURE

By Stanley Johnston

MICHIGAN STATE COLLEGE
AGRICULTURAL EXPERIMENT STATION
SECTION OF HORTICULTURE
EAST LANSING

Wartime Extension Folder No. 6 March, 1943

Increasing Tomato Yields By Profitable Cultural Practices

A good field of tomato plants in early June. These plants, which were set on May 5 near Dover, show great potential yielding ability.

Prepared by

E. P. Brasher, Truck Crop Specialist

Cooperative Extension work in Agriculture and Home Economics, University of Delaware and U. S. Department of Agriculture Cooperating. Published in furtherance of Acts of Congress, May 8 and June 30, 1914.

G. L. SCHUSTER, Director J. E. H. LAFFERTY, Editor

Folder 9 September 1943

HANDLING APPLES

by
C. O. RAWLINGS
Extension Horticulturist

HERE ARE YOUR APPLES—PERFECTLY GROWN, CAREFULLY PACKED TO REACH YOU IN TIP-TOP CONDITION.

AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF NEW HAMPSHIRE

Extension Bulletin 281 (Rep.) May, 1943

TOMATOES by *Direct Seeding*

Purdue University
Department of Agricultural Extension
Lafayette, Indiana

CIRCULAR 254 JANUARY 1944

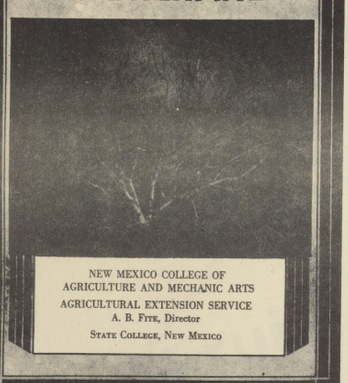
Treating VEGETABLE SEED TO PREVENT DISEASES

Leaflet 248 1943

Wartime Peach Production

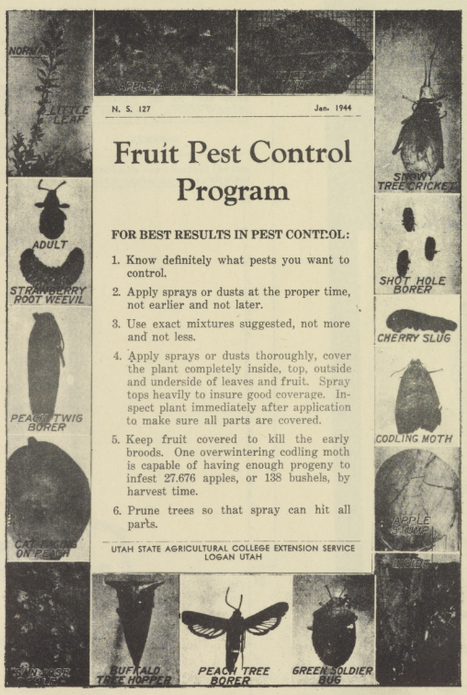
EXTENSION CIRCULAR NO. 168 REVISED MARCH, 1942

MANAGING *the* ORCHARD



NEW MEXICO COLLEGE OF
AGRICULTURE AND MECHANIC ARTS
AGRICULTURAL EXTENSION SERVICE
A. B. FITE, Director
STATE COLLEGE, NEW MEXICO

Cooperative Agricultural Extension Work with the U. S. Department of Agriculture, Acts of Congress of May 8 and June 30, 1914.



N. S. 127 Jan. 1944

Fruit Pest Control Program

FOR BEST RESULTS IN PEST CONTROL:

1. Know definitely what pests you want to control.
2. Apply sprays or dusts at the proper time, not earlier and not later.
3. Use exact mixtures suggested, not more and not less.
4. Apply sprays or dusts thoroughly, cover the plant completely inside, top, outside and underside of leaves and fruit. Spray tops heavily to insure good coverage. Inspect plant immediately after application to make sure all parts are covered.
5. Keep fruit covered to kill the early broods. One overwintering codling moth is capable of having enough progeny to infest 27,676 apples, or 138 bushels, by harvest time.
6. Prune trees so that spray can hit all parts.

UTAH STATE AGRICULTURAL COLLEGE EXTENSION SERVICE
LOGAN UTAH

EXTENSION BULLETIN 244 FEBRUARY 1943

WARTIME PRODUCTION OF VEGETABLE CROPS ON MUCK LAND

By Paul M. Harmer

MICHIGAN STATE COLLEGE :: EXTENSION DIVISION
EAST LANSING

Cooperative Extension Work in Agriculture and Home Economics, Extension Service, Michigan State College and the U. S. Department of Agriculture Cooperating.

36

FRUIT CROPS

THE
MASSACHUSETTS
COMMERCIAL VEGETABLE GROWER

Brieflet No. 555 April 1940

GROWING STRAWBERRIES IN VERMONT

Dried Fruit
for
All in 1943

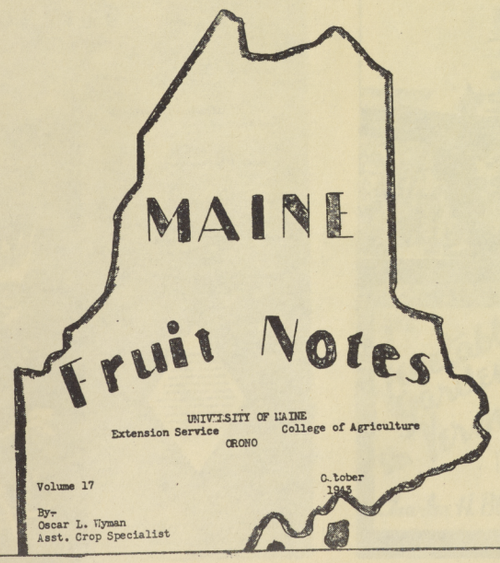
Page 1

MARYLAND SPRAY CALENDAR FOR APPLES, 1944

Prepared by the Department of Entomology
(APPROVED BY THE DEPARTMENTS OF HORTICULTURE AND PLANT PATHOLOGY)
UNIVERSITY OF MARYLAND—EXTENSION SERVICE
College Park, Maryland

AVOID WASTE. Improper use of critical spray materials (copper sulphate and lead arsenate) is a WASTE. Poor control of insects and diseases by improper spraying is also a WASTE. Spray thoroughly and on time using proper mixtures. Keep spray equipment in good running order. It may have to last a long time. AVOID WASTE.

TIME OF APPLICATION	PESTS TO CONTROL	MATERIAL TO USE IN MAKING 100 GALLONS FINISHED SPRAY	REMARKS
1-DORMANT SPRAY. To be applied while the	Scales, aphids, and European	(1) Dinitro compound—oil mixture. OR	It is absolutely essential that the top-most branches as well as all other



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Plant Disease Notes

New Jersey Agricultural Experiment Station

Vol. 21 No. 5* Department of Plant Pathology August, 1943

SWEET CORN SMUT CONTROL WITH DUSTS

Ear smut is the most destructive sweet corn disease with which we have to contend in New Jersey. Bacterial wilt occasionally causes serious losses on certain varieties, but on the average, ear smut ranks first in importance among our sweet corn diseases.

TWENTY-FOURTH WEEKLY RADIO FLASH (Orchard Insect and Disease Conditions (From the Illinois State Natural History Survey and (Extension Service in Agriculture and Home Economics (College of Agriculture, University of Illinois

IMMEDIATE RELEASE September 4, 1943

****

OPENING ANNOUNCEMENT: Here is the last in our series of reports on orchard insect and disease conditions presented in cooperation with state and federal agencies and a number of fruit growers.

****

First, a note on the codling moth situation.

In the Paducah and Louisville sections of Kentucky, heavy codling moth trap catches are reported. The cages at Louisville were showing the heaviest catches of the year through August 26. Heavy

VEGETABLE SEED TREATMENTS

Chart for 1944

Crop	Fungicide and Method of Treatment	Diseases Controlled
Asparagus	No treatment suggested at present.	
Beans lima, snap	Spergon or Arasan, 2 oz. dust for each bushel of seed or ½ level teaspoonful for each pound. Upstate, treat only if soil is cold	Damping-off, Seed-rot.

Issued Weekly
by
LOUISIANA AGRICULTURAL EXTENSION DIVISION
Marjorie B. Arbour, Editor Fred Williamson, Assoc. Editor
Gordon Loudon, Ass't. Editor-Radio

Volume II Number 25

A TIMELY HINT FOR ORCHARD GROWERS

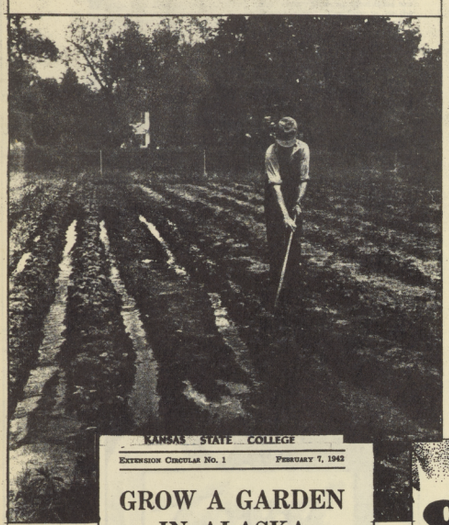
Don't wait until the petals fall to buy your lead arsenate. That's too late. It's not too soon NOW to be getting in a supply of lead arsenate, hydrated lime and wettable sulphur. When you have this material on hand, you'll be prepared to start

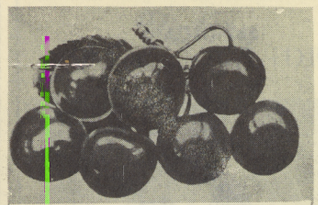
FRUIT CROPS

HOME GARDENS

Extension Circular 158 August, 1942

Farm Garden Irrigation





Fruit for Home Use

Planting Suggestions
Varieties for Nebraska

This leaflet is intended to help you select and plant suitable varieties of fruit trees and small fruits for home use. Much of this fruit will be grown in the back yard in town or in a small farm orchard near the buildings, but if a choice of a site can be made, several points should be considered. Ground which has been in trees or alfalfa is probably dry for a depth of 30 to 35 feet and should not be replanted to tree fr unless irrigation water can be applied. north or east slope is more desirable th a south slope. Well drained, low grou is preferable to a high, exposed locati even though late frost is more likely damage bloom on the low ground. A wi break on the south and west is a v necessary protection against hot win Choke cherries in the western half

KANSAS STATE COLLEGE
EXTENSION CIRCULAR NO. 1 FEBRUARY 7, 1942

GROW A GARDEN IN ALASKA

ALASKA GROWN

Cooperative Extension Work in Agriculture and Home Economics, under Acts of May 8 and June 14, 1914, Extension Services, Territory of Alaska, University of Alaska, and United States Department of Agriculture, Cooperating. Lorin Y. Oldroyd, Director.

grow a VICTORY GARDEN

PRODUCE FOOD for VICTORY IN 1943

EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING

LEAFLET NO. 27
(Revised, 1943)

Special Circular A-18 May 1942

GARDEN DISEASE CONTROL

Save FOOD FOR FREEDOM

The North Dakota Agricultural College
Extension Service
E. J. Haslerud, Director
Fargo, North Dakota

A Better GARDEN

Here's How

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE
SOUTH DAKOTA STATE COLLEGE, BROOKINGS
LEAFLET NO. 87 FEBRUARY 1944

HOME VEGETABLE GARDENING

Contributors—

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF DELAWARE
AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

UNIVERSITY OF DELAWARE
NEWARK, DELAWARE

Vegetable Gardening in Vermont

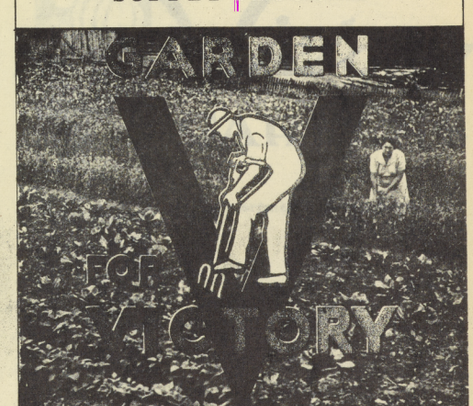
by Charles H. Blasberg

Agricultural Extension Service
University of Vermont
and State Agricultural College
Burlington, Vermont

March 1942 Circular No. 109
Second Edition April 1943

Publication 272 (Revised) December, 1943

TENNESSEE HOME FOOD SUPPLY PROGRAM



AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE

Cooperative Extension Work in Agriculture and Home Economics, Tennessee College of Agriculture, University of Tennessee and the United States Department of Agriculture cooperating. C. E. Brehm, Director. Issued in furtherance of the Acts of Congress of May 8 and June 30, 1914.

HOME
GARDENS
Farm Garden Irrigation
Fruit for Home Use
A Better
GARDEN
GARDEN DISEASE
CONTROL
Grow
a VICTORY
GARDEN
GROW A GARDEN
IN ALASKA
TENNESSEE HOME FOOD
SUPPLY PROGRAM

LEAFLET 38 *Revised* DECEMBER 1943

Growing Early Vegetable Plants Under Glass

W. B. NISSLEY

WHEN PLANTS are started under glass, where growing conditions are favorable, very little seed is wasted. It is economical, therefore, to use the best seed obtainable. Price is of minor consideration. Select varieties that are adapted to your conditions and sell well on your local market.

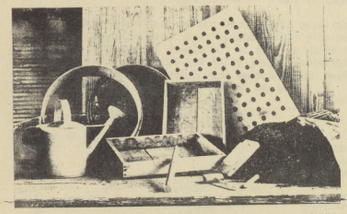
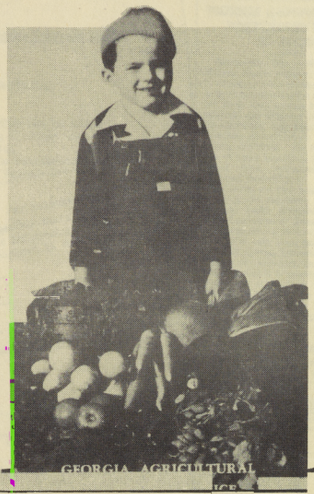


Fig. 1.—Tools and materials used in growing early plants: sprinkling can, sieves, flats, marking stick, dibbles, firming block, spotting board, and mixed soil.

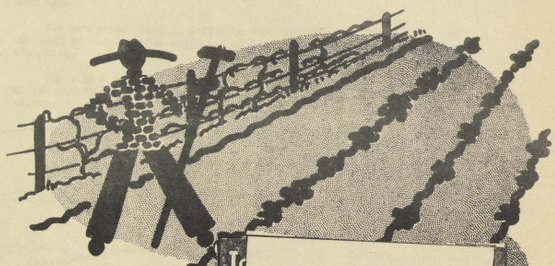
Soil.—Ordinary topsoil from the field or garden is not suitable for starting early plants under glass, whether in greenhouses or hotbeds. Such soil becomes hard, dries out rapidly, and is not very fertile. Plant-growing soils, therefore, usually are artificial mixtures or composts consisting of one-third topsoil, one-third well-rotted manure, and one-third sharp sand; or one-half topsoil and one-half well-rotted manure; or one-half topsoil, one-quarter well-rotted manure, and one-quarter sand. These ingredients may be screened separately and later thoroughly mixed. In the case of compost the ingredients are screened as a mixture. The important thing is to have at least one-quarter and not more than one-half organic matter in the mixture. Such soils are friable, will not bake or crust, will

Victory
GARDEN GUIDE



GEORGIA AGRICULTURAL

HERE'S HELP ON HOME FOOD PRODUCTION

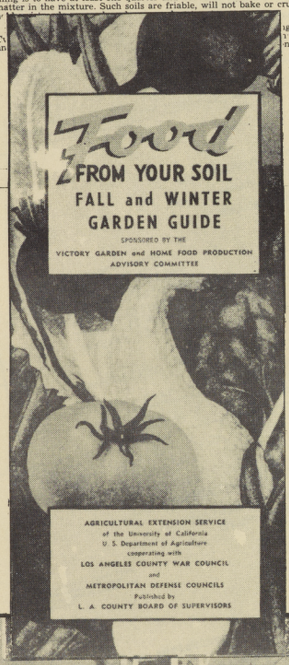


A Total of 290,000 copies of this pamphlet were issued and are being distributed to both rural and urban gardeners

Guide

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

AGRICULTURAL EXTENSION SERVICE—IOWA STATE COLLEGE
JANUARY, 1944 AMES, IOWA PAMPHLET 80



Siempre traiga este circular en la bolsa y lleve acabe las sugestiones dadas en la tabla en sembrando y produciendo su jardin.

PRODUZCAN SUS PROPIAS VEGETALES

"Mantengamos Alimentados"

Preparado por
A. B. FITE, Director de Extensión

Cuando, Que, y Como Sembrar . . . . .
. . . . . Como Producirlas

VEGETALES . . VITAMINAS VICTORIA

NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS
AGRICULTURAL EXTENSION SERVICE
A. B. Fite, Director
State College, New Mexico

Cooperative Agricultural Extension Work: Acts of the U. S. Department of Agriculture, Acts of Congress of May 8 and June 30, 1914.

FOOD FROM THE HOME GARDEN AND ORCHARD

By
HARVEY F. TATE
Extension Horticulturist

Co-operative Extension Work in Agriculture and Home Economics, University of Arizona, College of Agriculture and U.S. Dept. of Agriculture co-operating.

Profits in GARDENING

39

ORCHARD MANAGEMENT

Issued by
The Extension Service
Texas Agricultural and Mechanical College of Texas and
The United States Department of Agriculture
H. H. [illegible], Director, College Station, Texas

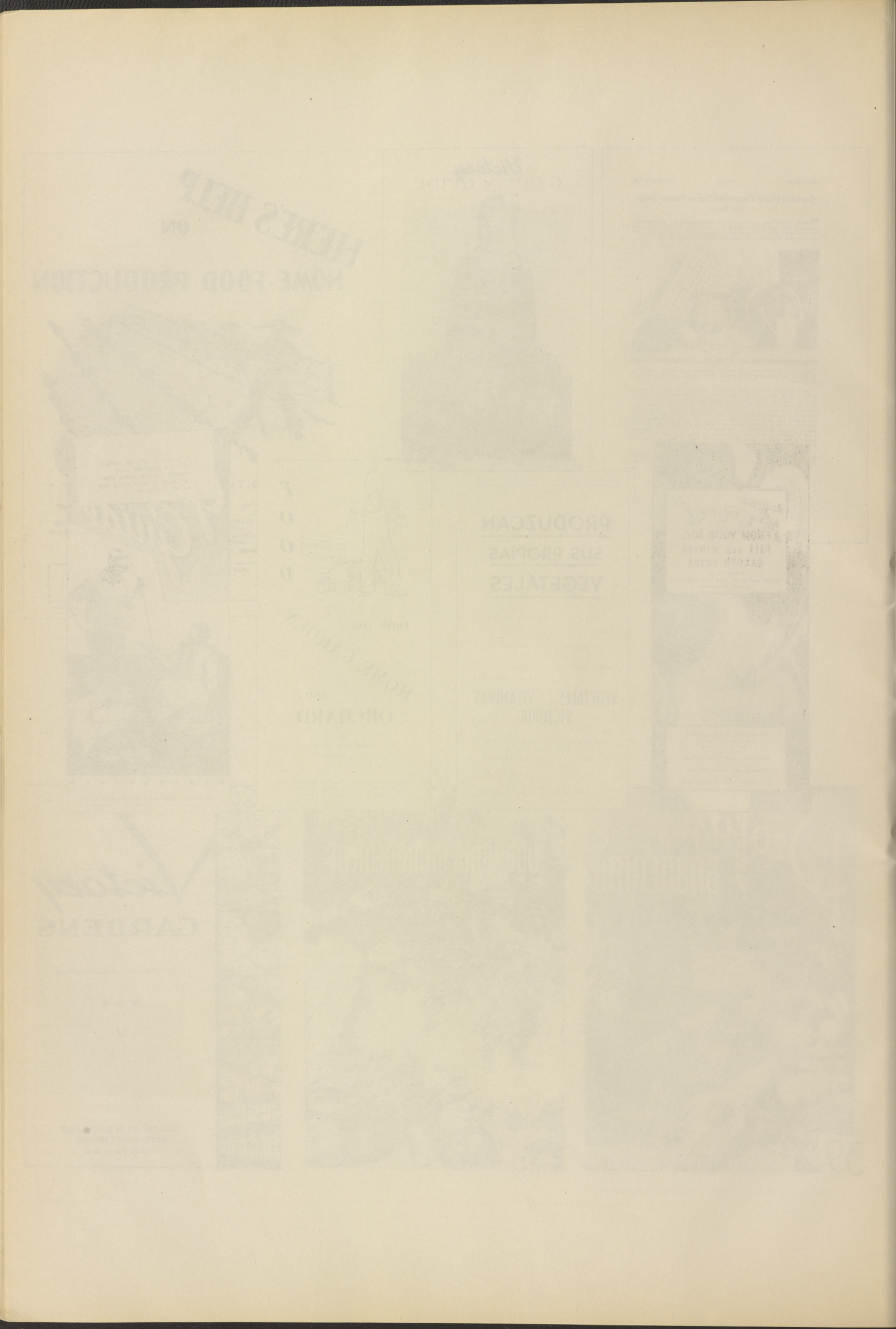
Victory GARDENS

Department of Horticulture

★ ★ ★

V

UNIVERSITY OF MARYLAND
EXTENSION SERVICE
College Park, Md.



Special Circular No. 77 — Revised, February 19th

FERTILISING THE VICTORY GARDEN

By Alden P. Tuttle, Assistant Professor of Vegetable Gardening
Massachusetts State College, Amherst

Barnyard manures are the best growth promoting materials which can be added to the Victory Garden. Poultry and rabbit manures are richer in nitrogen than barnyard manures and should not be used in quite so large amounts.

Animal manures are not quite perfect materials and should be reinforced with superphosphate or bonemeal when used in large amounts, and with Victory [illegible] fertilizer when applied in smaller amounts.

Amounts to Use for Each 100

Kind of Manure

VICTORY GARDEN VEGETABLES RICH IN FOOD VALUES

Gainesville, Fla. — The national Victory Garden program is intended to encourage home gardeners not only to provide more food but also to grow the foods that contain health-giving minerals and vitamins in the greatest abundance, says Chas. E. Abbott, professor of horticulture at the University of Florida. The fullest measure of these protective foods is obtained from well-grown, freshly-gathered vegetables.

He points out that nearly all commonly grown vegetables contain one or more health protecting minerals as well as vitamins. Some, of course, are better sources than others. However, it is only when the vegetables are well grown, harvested in their prime, and promptly and carefully prepared that it is possible to secure the highest values from them. Incidentally, only then, do they give flavors that distinguish them from most commercially produced [illegible]

Prof. Ab[illegible]

COOPERATIVE EXTENSION WORK
AGRICULTURE AND HOME ECONOMICS
STATE OF MISSOURI

UNIVERSITY OF MISSOURI
COLLEGE OF AGRICULTURE
U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

AGRICULTURAL EXTENSION SERVICE
WATERS HALL
COLUMBIA, MISSOURI

January 31, 1944

Dear Agent:

The conference held in Jefferson City last Friday, January 21, was designed to serve as the beginning of the 1944 Victory Garden Program for the state.

There is a need for more emphasis and more interest in cities and one of the year's aims is to secure greater enthusiasm and action in these centers.

[illegible] the Jefferson City conference is for in- [illegible] a "Victory Garden Day" in which the [illegible]ll join in a program to act as the "kick- [illegible]paign for 1944. It is proposed that, if [illegible]eek of February 7 - 12 which has been [illegible] in Missouri.

For release Thursday, Feb. 3

Editor: Although starting earlier than usual, these garden chats will be continued throughout the next several months to provide information to North Dakota gardeners. A new column heading is being prepared in mat forms and will be supplied to you soon.

VICTORY GARDEN CHATS
by Harry Graves

With garden seed catalogs now being delivered, the 1944 garden season is agai[illegible] at hand. Our North Dakota Victory gardeners, I know, will turn to these catalogs with interest after their successful garden [illegible]

The state has had a successful garden p[illegible] yielded abundantly. Many families grew a ge[illegible] quarts of canned vegetables adorn the shelv[illegible] Storage bins contain potatoes and root crop[illegible] these people are sold on [illegible]

Garden Chart

H. H. Isaac, Extension Horticulturist

Crop Variety	Days to maturity	Seed or plant requirement per 100 ft. rows	Depth to plant se[illegible] (Inches)	Amount to [illegible]
Asparagus* [illegible]	Perennial	65 plants	1	
	50 51 55 65	½ lb.	1-2	
	65 66	¼ lb.	1-	
	68 62	1 oz.		
	70	1 pkt. or 50 pla[illegible]		
	64 89 94 95	1 pkt. or 50 [illegible]		

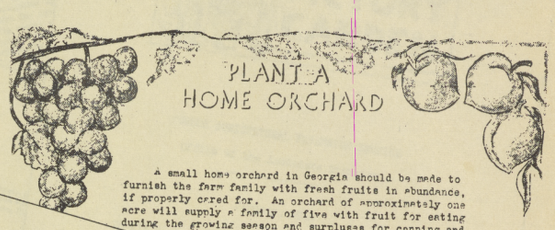
COOPERATIVE EXTENSION WORK
AGRICULTURE AND HOME ECONOMICS
STATE OF TENNESSEE

EXTENSION SERVICE
COUNTY AGENTS AND
HOME DEMONSTRATION WORK

UNIVERSITY OF WISCONSIN
COLLEGE OF AGRICULTURE
U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

HOME BAKERS' PROGRAM
RADIO STATION WSM
TIME - 15 MINUTES
JANUARY 15, 1944

ANNOUNCER: WHAT IS THE FOOD OUTLOOK FOR 1944? THAT IS AN IMPORTANT QUESTION, BOTH FOR PRODUCER AND CONSUMER. AND SINCE SO MUCH OF



A small home orchard in Georgia should be made to furnish the farm family with fresh fruits in abundance, if properly cared for. An orchard of approximately one acre will supply a family of five with fruit for eating during the growing season and surpluses for canning and [illegible]or. Some fruits and nuts can also be stored for winter

[illegible]chard and fertilize it well with both [illegible]ers should also be used during

[illegible]tate from

[illegible]hes

[illegible]trees
[illegible]amily

15
[illegible]
-30
-5
5-20
3-4

CO-OPERATIVE EXTENSION WORK
IN AGRICULTURE AND HOME ECONOMICS
STATE OF INDIANA

AGRICULTURAL EXTENSION SERVICE
LAFAYETTE, INDIANA

PURDUE UNIVERSITY AGRICULTURAL EXTENSION DEPARTMENT, AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

December 27, 1943

To all County Agricultural Agents:

Perhaps you have already heard - anyway, there is now in the process of being prepared for your exclusive use a "VICTORY GARDEN NEWS KIT," containing short news stories on all phases of gardening. Othe[illegible] services of our office will provide garden news for use on the radi[illegible]

It is planned to place these [illegible]

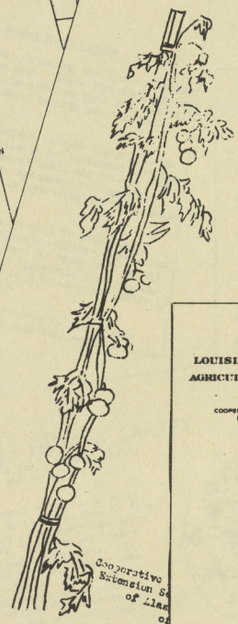
MASSACHUSETTS HOME GARDEN COMMITTEE

POLICY in 1943

1. Patriotism calls for an extensive increase in well-planned home gardens to assure an adequate food supply for the family.
2. Gardens for family food supply on all farms should be encouraged.
3. Gardeners should obtain adequate and accurate information before planning the garden.
4. Community or group gardens should be undertaken only after careful planning and under experienced supervision and when they do not involve the wasteful use of machinery, materials and hired labor.
5. Patriotism demands the conservation and preservation of all food crops whether from home gardens or commercially produced.

POLICY in 1944

1. Winning the War calls for an [illegible]sive campaign to increase [illegible] Supply by more and better [illegible] so that families by still [illegible] supply their own needs.
2. Every farm, rural, v[illegible] family with suitable [illegible] otherwise available [illegible] aged to have a [illegible] a successful conclu[illegible]
3. Adequate and accurate info[illegible] must be made available to all [illegible]ers and every effort made to help [illegible] Home Gardeners to make use of this information.
4. Community or allotment gardens should be encouraged and made successful by careful preliminary discussion, adequate information, and frequent consultation by trained workers after planting.
5. Winning the War demands that all food crops, either from Home Gardens or Commercial Areas, which are not used as fresh food be preserved by any and all suitable methods.



LOUISIANA STATE UNIVERSITY
BATON ROUGE, LA.
AGRICULTURAL EXTENSION DIVISION
H. C. SANDERS, DIRECTOR

FREE
COOPERATIVE AGRICULTURAL EXTENSION WORK
(ACTS OF MAY AND JUNE 30, 1914)

HOME ORCHARDS

November is the month for setting [illegible] Plants are very scarce but your county [illegible] have a list of growers who have some p[illegible] Ferguson, home garden specialist.

Nov[illegible] the orch[illegible] fruit tr[illegible] San Jose[illegible] "Or[illegible] January, [illegible] trees co[illegible] in this [illegible]

/mbf

EXTENSION PRESS SERVICE

An Alaskan Pumpkin

There is no record of the thoughts that went through Alfred Linder's mind last April as he prepared to plant a flat of pumpkin seeds, but chances are he never expected the fame that was in store for him. Not being able to get fresh seeds, he used a package left from the year before labeled "California Field Pumpkins."

The plants thrived and wer soon transplanted into individual pots ready to go into the garden in May. The soil was richly fertilized with manure. As soon as blossoms appeared, they were pollinated with a small brush. Alaska sunshine, good care and cultivation, plenty of water and the admiring glances of all passersbys, resulted in a crop of giants. A 60-pound pumpkin is a good round product even in California, but in Alaska where it is remarkable that they grow at all, a 63 pounder is "some pumpkin," but by no means the limit. The real giant weighed 63 pounds when harvested. Since such a glamorous product deserved a better fate than falling immediately into the obscurity of the stew pot, Mr. Linder presented it to the Extension Service, and it started going places. As there was no Tanana Valley Fair this year, the assortment of pumpkins and squashes spent most of the time on display in the Lacey Street office window. There weare three giant pumpkins, three honey pumpkins, and several squashes. They appeared as the feature decoration of the Harvest dance at the Masonic Hall and posed for numerous photographs.

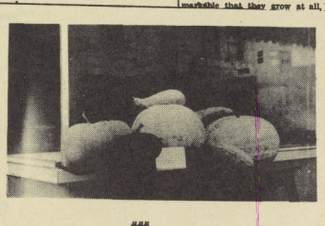
Unspoiled by the adulation of the masses, the giant 63-pounder succumbed to an honorable demise. The pulp, stewed and mashed by Lydia Pohn-Hansen of the Extension Service, filled 4½ gallon jars. The seeds numbered 223 of which only 102 were filled out, and will be sent to those who made requests. The peel was used for chicken feed.

The 4½ gallons of pulp were made up into pies which were served at the Harvest Home Festival Saturday evening, October 9. Thirty pies were made for the occasion, and there is still enough left to make several more.

A recipe recommended by Mrs. Gray & Tilly of the Extension Service was used, ad nithe ingredients were furnished by the Cooperative Market. Those contributing pies were Mrs. Andrew Nylund, Mrs. W. L. Crossley, Mrs. Leo Rogge, Mrs. Marie Mackey, Mrs. John Dunn, Mrs. Bert Dorsch, Mrs. Murray Shields and Mrs. Gus Wilson.

The Tanana Valley is grateful to Mr. Linder for [illegible] and other [illegible] pumpkins can

The Extens[illegible] recipients can Linder for [illegible] parties for [illegible]



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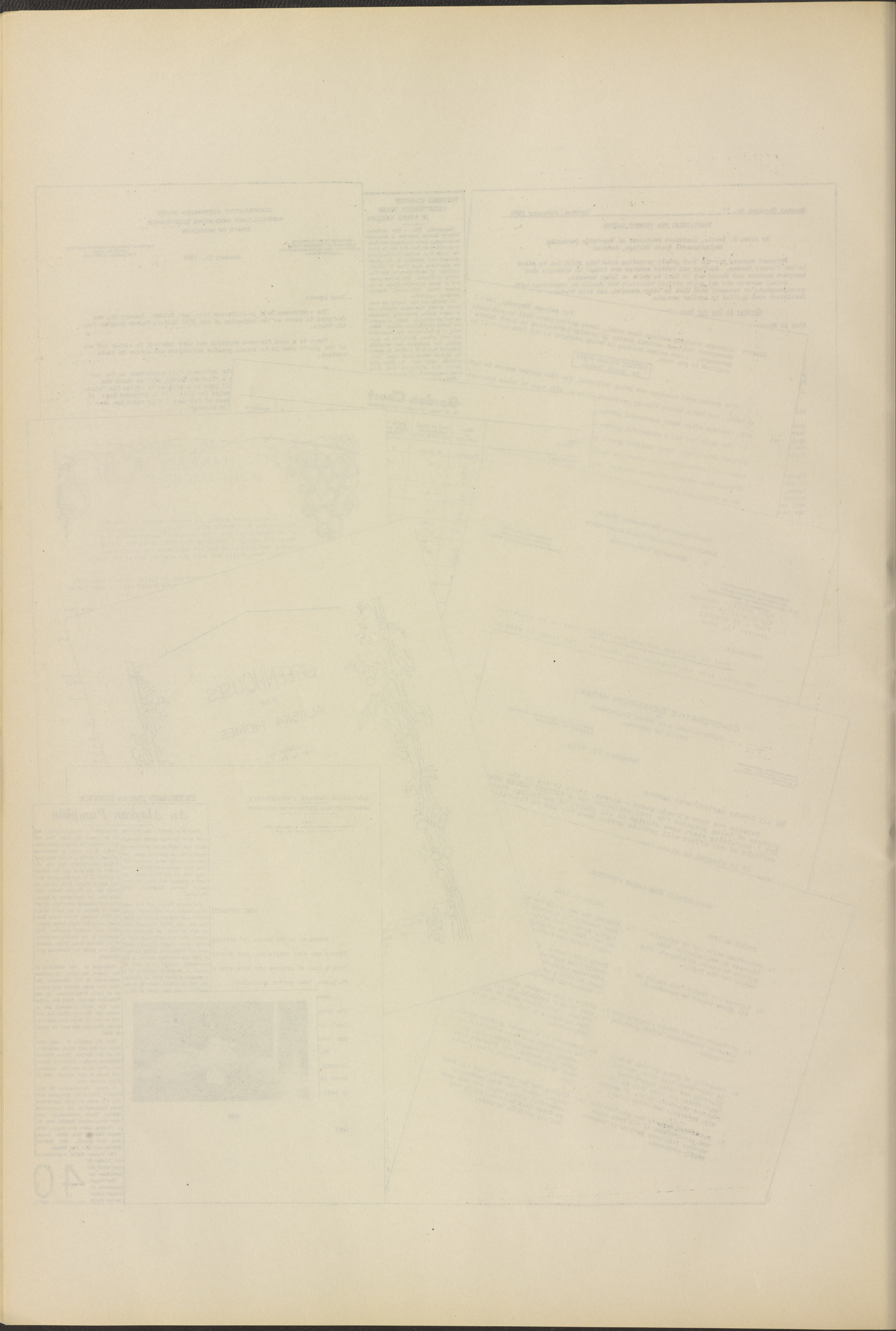

SUGGESTIONS FOR CONDUCTING
FIRST MEETING OF TOWN-CITY COMMITTEES
1944

1. Discuss the Policy of 1944 in comparison with 1943. Impress the thought that need for Program in 1944 is as great as in 1943.

2. Give particular attention and discussion to the "Suggestions for Organizing" writeup.

3. Emphasize need for good planning of Garden to provide for fresh vegetables and supply for Preservation. Indicate usability of Storage for some vegetables.

4. Emphasize that Project in 1944 is built on Better Gardens as well as more of them. That the objective is More Food per garden.

5. Emphasize the value of more teaching; more meetings; bet... subject matter Bulletins. Call attention A... 47.

6. Discuss the ...

4-H GARDEN PROJECT

AIM: To gain experience in the growing of varieties adapted to North Dakota conditions and in learning the value of home-grown garden products from the standpoints of health and money. Experience in planning the garden is as important as growing one. In war times, a garden takes on a decidedly patriotic aim.

See pages 41-43 for General Aims and Plans.

GENERAL REQUIREMENTS: The important thing is to get a garden grown. In normal times, the garden project is too often looked upon as a "young member's" project. A good garden is a direct contribution to the budget and health of the entire family. Some parents even pay 4-H members ... products consumed at home.

However, in war times, a large number of 4-H member's h... the garden project entirely from the viewpoint of a va... it is an additional project carried by the member. T... commended and should be continued.

Many types of cooperation with the family on a gard... In order to give some ideas and to make the projec... 4-H projects, any one of the three following plan... project:

1. Take charge of entire family garden. The m... have to do all the work on a large garden. In any case, ... together on a large garden. In any case, ... at least that required on four square ro...

2. Take a section of the family garden equ... rods. This section can be all the tom...

3. Grow a separate garden of at least f... ...toes should not be included in the ... for very early use. Ther...

ws Service

rsity of Florida

RELEASE NOVEMBER 25, 1943

PALM BEACH COUNTY'S PRODUCTION RECORD IS BASIS FOR "A" AWARD

West Palm Beach, Fla.—Because their plantings of fresh vegetable food crops 12,545 acres, almost 25 percent, during the 1942-43 season, the county has been chosen for an "Agricultural A" award on November 30. ... Agent M. U. Mounts says ... Norman K. Browne of ... Quartermaster Corps will ... at exercises ... Admin-

Women's Groups Put Stress on Food In Their 1944 Plans

Tallahassee, Fla.—The State Coun... cil of Semior Home Demonstrati... Work is urging farm famili... throughout the state to increase ... production and conservation of ... in line with their past work and ... the national "food fights for free... efforts, says Miss Mary E. ... state home demonstration ag... Volunteer leaders for agr... war work assisting county ... demonstration agents in ... also are lending ...

COOPERATIVE EXTENSION WORK IN AGRICULTURE
AND HOME ECONOMICS
STATE OF ILLINOIS

College of Agriculture, University of Illinois
United States Department of Agriculture, Cooperating

Extension Service in ... and Home Eco... Urbana, Ill...

January 4, 1944

To farm advisers with
access to radio stations and
Chicago and St. Louis Radio
Farm Program Directors:

Re: 1944 Victory Garden Short Course

...nstrumental in making the Victory garden ... success in 1943. Since Victory gardeners ... Freedom in 1944, we feel that you will ... opportunity to make their efforts a ...

...ies of programs on 1944 Victory Garden ... made available for broadcast purposes ... each Tuesday until mid-October. This ... A. Somers, associate in vegetable ... cast will be approximately five minute...

...r. Somers was able to build up an ...tory gardeners in a similar short course ... your station. In order that we may ..., we would appreciate your filling ...ay be able to give adequate publicity ...ill be heard.

...being of service to you by your ...ed card at your earliest convenience ...

...rdially,

MORE FOOD NEEDED IN 1944
START YOUR VICTORY GARDEN NOW

Georgia made a splendid record in food production with over 325,000 Victory gardens in 1943. Our government is calling for at least a 10% increase in the number of gardens in 1944. With last year's experience most gardeners should be able to increase the quality and variety of vegetables this year.

Several things are very important in successful gardening such as: early beginning; good seed; proper fertilizer; well prepared garden soil; treatment of seed for disease control; proper material and equipment for insect control. Some of these materials are scarce and should be provided for early in the season.

For some garden crops it is important to have well grown early plants. For the small garden many of these plants can be very ...successfully grown indoors by a sunny window in boxes containing ...seeds are sown boxes should be covered with ... the soil. Some

PURDUE AGRICULTURAL EXTENSION SERVICE
Office of the Associate Director

January, 1944

To All County Agricultural Agents:

You, as county agricultural extension workers, have a definite responsibility on the food production front of this war. Certainly, gardens have played an important role in the food picture for years. In time of war, the importance of gardens grows.

It was estimated that Indi... tory gardens produced ... quality food ...

NEWS NOTES

FROM COLORADO STATE COLLEGE
FORT COLLINS, COLORADO
EDITORIAL SERVICE -- ADM. BLDG.

STATE'S GARDENS PRODUCE FOOD ENOUGH TO FEED 120,000 SOLDIERS

To weeklies

For release THURSDAY Dec. 9, 1943

Nearly 300,000 Persons Tended Gardens That Yielded 52,465 Tons of Fresh Products

Nearly 300,000 persons in Colorado gardened to produce 52,465 tons of fresh vegetables and fruit from 125,400 Victory Gardens this year, reports Charles H. Drage of the Extension Service of Colorado ...

JAN 25 1944

Special Radio Release 142
Et-114-Ep-21-C-7

From: Montana State College
Bozeman, Montana

Immediate Release

By this time many gardeners have pretty well decided where they will have their garden this year, what size it will be and what they plan to grow in it. So let's follow up today with a few facts about garden crops and finish up with suggestions on varieties that have been found to do well in most parts of Montana.

F. M. Harrington, horticulturist at the Montana Agricultural Experiment station, points out that vegetables fall into four groups insofar as their planting requirements are concerned.

Group one includes those warm season vegetables which must be started as transplants and planted out of doors after there is no longer danger of frost. In this group are tomatoes and peppers.

In group two are the cool season vegetables which must be planted indoors and then moved to the garden later in the spring. This group of vegetables will stand a certain amount of frost and ordinarily may be moved to the garden along about the middle of May. In this group we find cauliflower, cabbage, onions and broccoli.

Group three is the cool season vegetables. These are seeded directly in the garden and will stand some frost. The seeding date for these vegetables would be from the first part of May to the middle of the month, depending upon local conditions. In this group ... lettuce, radishes, carrots, beets, peas, onions and spinach.

The fourth group includes those warm weather crops which ...

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FAMILY GARDEN AND ORCHARD SUGGESTIONS FOR ALABAMA

W. A. RUFFIN
Extension Entomologist and Horticulturist

A good home garden and orchard will go a long way toward furnishing the family food supp... Vegetables do best on a well-drained loam soil. They must be fertilized well and sprayed regular... to control insects if best results are to be obtained.

A heavy application of stable fertilizer should be broadcast over the garden before the grou... is turned in the spring. Ten days before planting time apply in the row 10 pounds of 4-10-7 to eve... one hundred feet. Frequent shallow cultivation is necessary to keep down weeds.

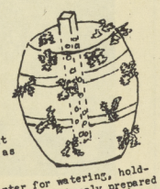
In order to insure an adequate supply of vegetables throughout the year, several plantings shou... be made of such crops as beans, corn, and turnips.

Suggested Planting Chart for Family of Five

Vegetables	Varieties	When to Plant	Row Length	Amount of Se... or Plants
Beans—Bush snap	Black Valentine Tennessee Green Pod	March to Aug.	200	2 lbs.
Beans—Pole snap	Kentucky Wonder Ala. No. 1, Ideal Market	March to Aug.	200	2 lbs.
Beans—Bush	Henderson Bush	March to Aug.	200	2 lbs.
Beans—Pole	Sieva, Yoppe Prolific	April to July	200	2 lbs.
Beets	Crosby, Egyptian Detroit Dark Red	Feb. to Sept.	50	1 oz.
Cabbage	Wakefield	Feb. to Sept.	100	100 plants
Cabbage	Chantenay	Feb. to Sept.	50	1 oz.
Corn	Southern	June	100	100 plants
Corn	Truckers Favorite Stowell's Evergreen	March to July	200	1 lb.
Cucumbers	White Spine Long Green	April	50	¼ oz.
Eggplant	Early Purple ...ia. High Bush	April	25	1 pkg.
Lettuce	...iberian	March and Sept.	50	1 oz.
Lettuce	...rand Rapids ...perial 847	Feb. and Sept.	50	1 pkg.
Okra	...hite Velvet ...mson spineless	April	100	1 oz.
Onions	...setaker, Bermuda ...erskin, Shallots	March	400	4 qts. sets o... 1000 plants
Peppers	...ka, Thomas Laxton ...phone	Feb. and Aug.	200	2 lbs.
Radish	...der	April to July	300	1 lb.
Peppers	... King, Cayenne	April	25	1 pkg.
Peas	...ph, Cobbler	March and Aug.	¼ A.	3 bu.

BERRIES FROM A BARREL

...ugh berries for the small family
... on the small lot



...es in a barrel calls for a large, ...rel. Bore or cut from four to five ... Place the first row about three ... the barrel, the rows six inches ...ill a half dozen small holes in ... Remove head from barrel and move ...ot. Set the barrel upon a low, ... better ventilation which will dis... have improvised rollers which make it ... barrel to a more favorable position as ...

...he perforated pipe down through the center for watering, hold... ...th the first layer of soil. This enriched, previously prepared ...led to just below the first line of holes. Set plants, spreading ...rmly and watering down before building up soil for the next row. ... plants on top of the barrel for replacing if needed.

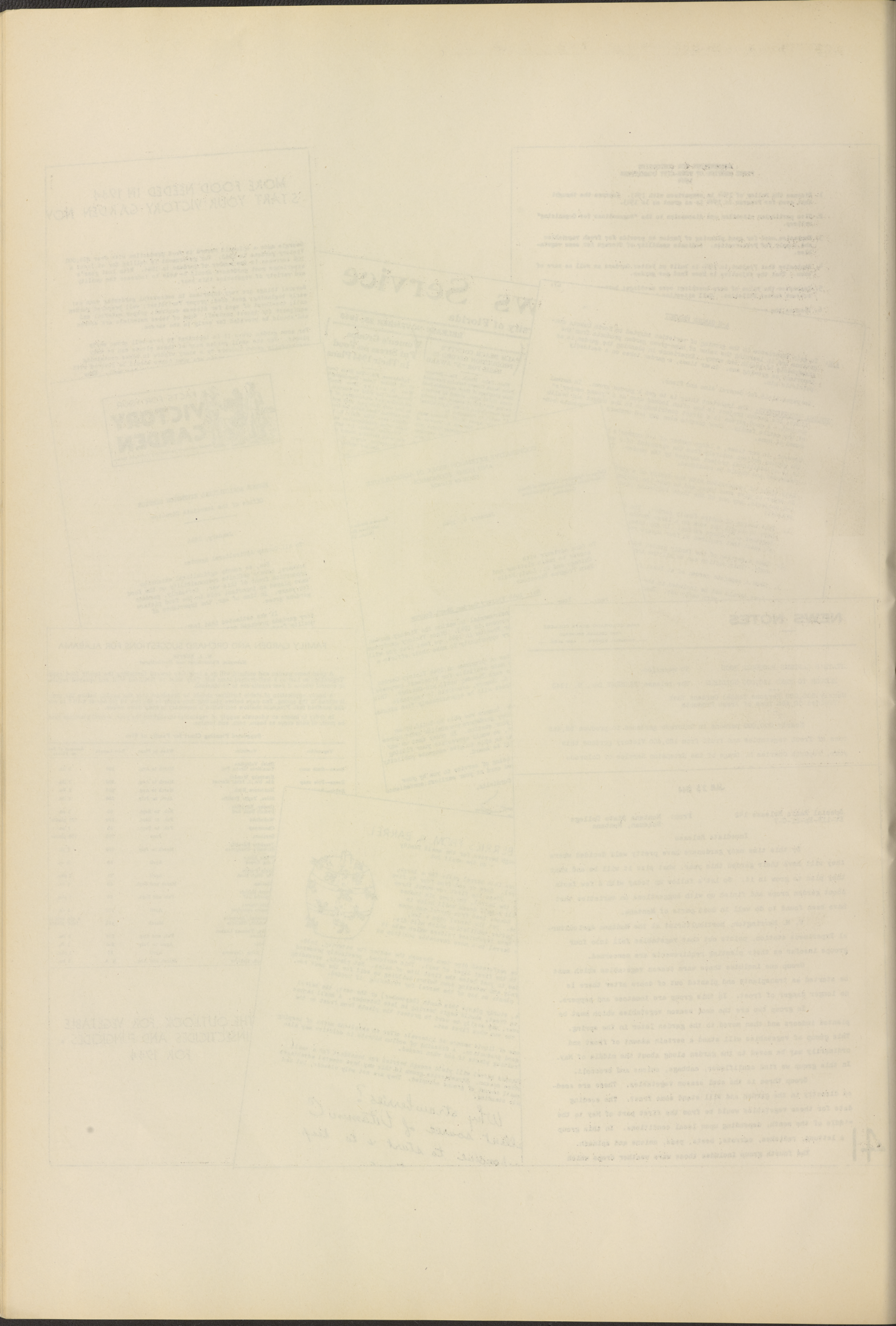
...e, sturdy plants this month (September) or the next, the barrel ...ng frost, should begin bearing in late December. A small canvas ...ver, may easily be used to protect the plants from frost or the ... the sun when first set.

...ons of liquid manure at intervals offer an excellent means of keeping ... good production. A dressing of sodium nitrate in solution may also ...fruiting plants if and when needed.

...lanted barrel will yield enough berries for breakfast for a small ...tire season. Strawberries grown in this way have several advantages ...small amount of ground occupied. They are not only cleaner, but can ...ile standing.

Why strawberries?
...ellent source of Vitamin C
...hensive to start & to keep.

THE OUTLOOK FOR VEGETABLE INSECTICIDES AND FUNGICIDES FOR 1944



HOME MEAT, MILK,

B-106

Killing and Cutting Lamb

Hog Slaughtering and Pork Cutting

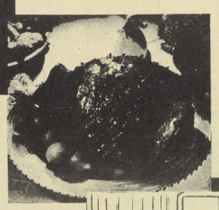
University of Nebraska Agricultural College

EXTENSION FOLDER P-7 (2nd Printing) FEBRUARY 1943

Home-prepared

PORK

Reduces the Food Budget



A family of six should have 360 pounds of pork and 72 pounds of lard annually.

MICHIGAN STATE COLLEGE
EXTENSION DIVISION
EAST LANSING

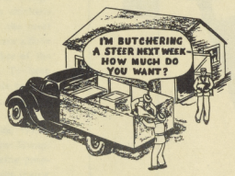
Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director Extension Division. Printed and distributed under act of Congress, May 8, and June 30, 1914.

EXTENSION FOLDER F-15 FEBRUARY 1943
SECOND PRINTING

Home-prepared

BEEF

Simplified by "Meat Rings"



Cooperating Neighbors:

1. *Save Labor in Beef Butchering*
2. *Lower Cost of Food Budget*
3. *Assure Healthful Variety of Fresh Meat*

Prepared by George J. Propp, Assistant Professor of Animal Husbandry

MICHIGAN STATE COLLEGE
EXTENSION DIVISION
EAST LANSING

Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director Extension Division. Printed and distributed under acts of Congress, May 8 and June 30, 1914.

How to Raise Rabbits

By Eugene S. McConnell

- Meat of domestic rabbits (it is all white and fine grained) is always in season and is superior to that of wild rabbits, both in flavor and texture.
- It requires only 90 days from the time the doe is mated until her young are ready for the table.
- A doe may raise 4 litters each year.
- Rabbit meat is produced at low cost: about 5 pounds of feed produces 1 pound of live weight; rabbits eat much waste food; when 60 days old they dress about 2 pounds.
- Pelts are marketable when properly prepared. Rabbit manure is a good fertilizer.
- Space in the back yard, just large enough for the hutches, is all that is needed to raise rabbits.
- Hutch-raised rabbits rarely, if ever, get tularemia (rabbit fever).

Leaflet 56

UNIVERSITY OF KENTUCKY
College of Agriculture and Home Economics
Agricultural Extension Service
Thomas P. Cooper, *Dean* and *Director*

Lexington, Kentucky August, 1943

EXTENSION CIRCULAR NO. 186 NOVEMBER, 1943

FARM CURING OF MEATS

NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS
AGRICULTURE EXTENSION SERVICE
A. B. Fitz, Director
State College, New Mexico

Cooperative Agricultural Extension Work with the U. S. Department of Agriculture. Acts of Congress of May 8 and June 30, 1914.

RAISING RABBITS IN NEVADA

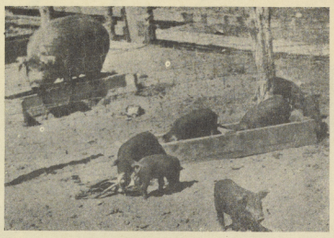
❖

Agricultural Extension Service
UNIVERSITY OF NEVADA
Bulletin 92

Extension Circular No. 113 November, 1941

University of Arizona
COLLEGE OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE

PRODUCTION FOR DEFENSE
MORE FOOD FROM ARIZONA FARMS

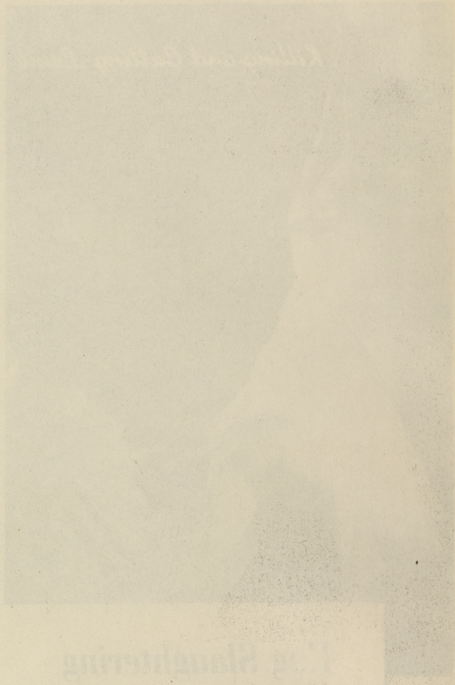


PORK
A SOURCE OF HOME MEAT SUPPLY

By J. T. Rigden

PUBLISHED BY
University of Arizona
TUCSON, ARIZONA

42



EGG, PRODUCTION

MORE MILK from FAMILY COWS

By Fordyce Ely

Milk, cream, butter, buttermilk, cottage cheese, and dishes made from these products go a long way toward making family meals healthful and appetizing. This puts the family cow into the front line of Kentucky's wartime Live-at-Home Program. Since about 60 percent of all Kentucky milk comes from family-size herds, the family cow also finds herself in the front ranks of the wartime dairy-production program. Now is the time to give these cows the best care and feed in order to increase and maintain production of milk and milk products.

Leaflet 28

UNIVERSITY OF KENTUCKY
College of Agriculture and Home Economics
Agricultural Extension Service
Thomas P. Cooper, *Dean* and *Director*

Lexington, Kentucky March, 1942

★ ★ ★ ★ ★

Wholesome Milk on Texas Farms

★

★

"Boy, it tastes good!"
And it's good for you, young man!

Keep *Chickens and Eggs* for *Home Use*

EVERY FARM FAMILY and many village families will want to keep enough chickens to produce the eggs and some of the meat needed for the family. With good care a flock of 5 hens or pullets for each member of the family will produce enough eggs. To keep up a flock of this size and to provide poultry meat, start 15 chicks in the spring, for each member of the family. For both eggs and meat, such breeds as Barred Rocks, White Rocks, Rhode Island Reds, or New Hampshires are best. Suggestions for taking proper care of the growing chicks and the laying hens are given in this folder.

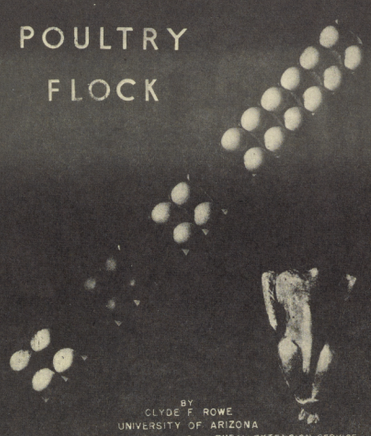
Leaflet 62

UNIVERSITY OF KENTUCKY
College of Agriculture and Home Economics
Agricultural Extension Service
Thomas P. Cooper, *Dean* and *Director*

Lexington, Kentucky December, 1943

EXTENSION FOLDER W-6 APRIL 1942

THE FARM POULTRY FLOCK



BY
CLYDE F. ROWE
UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE, AGRICULTURAL EXTENSION SERVICE

The Farm Home Milk Supply

E-373 (30M) May 1943

Cooperative Extension Work in Agriculture and Home Economics, Virginia Agricultural and Mechanical College and Polytechnic Institute and the U. S. Department of Agriculture cooperating.

Milk is an essential food. Every farm family should keep at least two good milk cows, one to freshen in the spring, the other in the fall. Two good cows, well fed and cared for, should provide all the milk and butter the average family will need. In addition, there should be considerable skim milk and buttermilk for supplementing home-grown grains in the rations for pigs, chickens, and calves.

Provide Good Stables

Well-arranged barns make less work in caring for cows. To do their best, cows must be kept clean and comfortable. They should be housed in dry, well-lighted, well-ventilated stables. For each cow there should be 500 cubic feet of space and one window not less than 3 feet square. The windows should be so spaced as to give light and ventilation to all parts of the stable.

The stable can be kept clean more easily if the ceiling and walls are sheathed with smooth lumber and if the floors are smooth concrete.

Cows should be tied in stalls for greatest convenience in handling. The stalls should be 4½ feet wide and 5 feet long, arranged side by side, and have a manger in front facing on a feed alley that is 6½ feet wide. The stall floor

4-H VICTORY PROJECT FOR GIRLS
8-9 Years of Age

Circular No. 384 1943

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
State of Oklahoma
Shawnee Brown, *Director*, Stillwater
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

★ ★ ★ ★

Keeping the Family Cow On the Job ★ ★ ★ ★

Extension Folder W-12 March, 1943

MAKING AND STORING FARM BUTTER

Prepared by
R. N. Davis

Farm Buttermaking Equipment

Cooperative extension work in agriculture and home economics, the University of Arizona College of Agriculture and the U.S. Department of Agriculture co-operating

The Family Milk Cow on Georgia Farms

GEORGIA AGRICULTURAL EXTENSION SERVICE

43

VEAL and BEEF for FAMILY USE

by

Univers

Brieflet No. 62

FARM AND HOME MEETINGS
(to be held at)
Palmer, Alaska - Mar. 7-8-9

Feed The Family First

9:45 - Registration - Lorin T. Oldroyd
10:00 - Agriculture lectures
1. Dairying — Wallace Ebert
2. Soils — Geo. W. Gasser
11:15 - Pressure Cooker (Lecture and Demonstration) — Lydia Fuhn-Hansen
12:00 - Lunch

1:00 - Poultry - Lecture by Lorin T. Oldroyd
Soils and Fertilizer - Lecture by Geo. W. Gasser
(Remainder of afternoon devoted to discussion of current problems.)

Evening: Wasilla, Alaska — presentation of motion picture film: "Power and the Land."

10:00 - Dairying - Lecture by Wallace Ebert; continuation of previous day's topic
10:40 - Hunger Signs of Vegetables - Geo. W. Gasser, Lecturer.
11:15 - Streamlined Housework - Lecture by Helen Maughan
12:00 - Lunch

1:00 - Poultry - Continuation of lecture by Lorin T. Oldroyd
Commercial Production of Lettuce

Ye Old Virginia Rabbit Recipes—

Get the habit: Eat a rabbit!

THIS YEAR'S
No. ONE JOB

Homemade Brick Brooder Stove

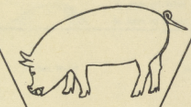
By J. B. Kelley and J. E. Humphrey

A brick brooder stove is one of the most popular means of heating brooder houses because it is low in cost, easy to build and simple to operate. Where wood is plentiful, the fuel cost is very low. There are no mechanical parts to rust out or get broken; there is plenty of brooding space to prevent crowding of chicks; and the bricks hold enough heat to keep up the temperature in the house even when the fire gets low.

Making the Floor for the Stove

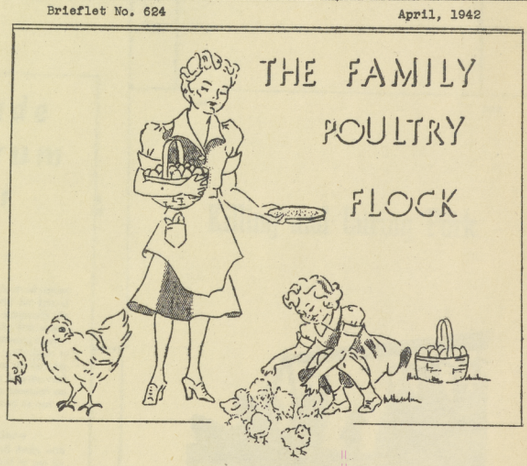
If the stove is to be built in a house with floor, cut a hole 3 feet by 6 feet through

RAISING A PIG



COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF VERMONT
J. E. Carrigan, Director
(Acts of May 8 and June 30, 1914)
College of Agriculture, University of Vermont and U. S. Department of Agriculture, Cooperating.
Extension Service
Burlington
Vermont

Brieflet No. 624 April, 1942



By D. C. Henderson
Extension Poultryman

A home poultry flock, when properly cared for, will profitably produce the eggs and poultry meat for the family.

PRODUCING THE LAYING FLOCK

A flock of 20 layers should supply the eggs and poultry meat for a family of five. During the spring more eggs may be produced than are needed. These can be "put down" in water glass and us during the period of short production in the fall and early wir

La Mantequilla

Historia

Cuándo y dónde se originó el uso de la mantequilla, permanecerá en secreto, sólo sabemos que siglos atrás, los árabes usaban la mantequilla como alimento y como untura. Hoy la mantequilla se prepara en todos los países del mundo, tanto de leche de vaca como de leche de cabra.

Valor Alimenticio

Debido a su valor alimenticio, la mantequilla debe consumirse en el hogar siempre que sea posible. La mantequilla es fuente muy importante de energías; contiene abundante vitamina A y es una de las grasas más fáciles de digerir.

Descripción

Mantequilla buena es firme y bien unida, de color uniforme y bien sazonada. La mantequilla se prepara de la crema de leche. Puede prepararse de la nata de leche pero no tendrá la suavidad de la mantequilla corriente ni tendrá el color amarillo.

Equipo y Materiales Necesarios Para La Preparación

Materiales:- Crema, sal en polvo, agua fría o hielo.

Equipo: Batidor: (Puede ser un batidor expresamente para mantequilla o meramente una cuadra o batidor corriente con una escudilla o frasco.) El envase debe ser suficientemente grande.

Escudilla: Para lavar la mantequilla. (Puede ser esmaltada, de cristal o aún de una higuera).

AGRICULTURAL EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE AND UNIVERSITY OF CALIFORNIA

Emergency Food Production Circular

HOME RABBIT PRODUCTION

By H. M. BUTTERFIELD

of four might consume up to about
year, representing a retail value of
wing for a reasonable variety, the
200 pounds of rabbit meat with a
. Children can help look after the
cost of labor is a small item. Some-
e raised at home to help reduce cost
ed has to be purchased, the net sav-
ssibly under $10 a year; however,
considering when trying to reduce

of meat rabbit in California is the
should reach 4 pounds live weight
rcentage will be about 53 to 55 per
f meat ready to cook should be pro-
ths old. Young frier rabbits of this
rly age and make very economical
good ration.
may also be raised to provide meat
Zealand Red, Flemish Giant, and
reeds. The large meat rabbits, such
little longer to fill out than the New
prove entirely satisfactory for a
r rabbits. The smaller breeds, such
r also be used for meat purposes,
ing a pound of meat will usually be
breed is finally selected, it is im-
strain to avoid heavy mortality
on to lose one rabbit out of every
ontrolled, so starting with healthy
f production is to be kept down. A
ingle breed will be easier to man-
bits.
ber of breeding does to keep, it is
om 60 to 75 pounds live weight of
doe. In commercial rabbitries the
s figure, although occasionally the

more successful producer averages
frier rabbits per breeding doe. Ave
for each doe, 6 to 7 young per litte
bits raised to two months of age wi
tion. Three breeding does properl
at least 200 pounds of frier rabbits,
than 100 pounds ready to cook.
diseases, such as coccidiosis, snuffl
avoided. Occasionally feeding dill
in heavy losses.

Cash Expenses

There is an important expense to
meat rabbits. Commercial rabbit re
erage of a little more than $5 a y
maintain each breeding doe and
allowance of $18 would be safer wh
cost of producing 200 pounds of fr
is based on a cost of $12 a ton for
hundred for grains. Mashes cost n
but in any case the cost should be l
pounds of concentrates.

Foundation breeding stock shou
years, and the first cost should be
three years in figuring charges. A
producing meat rabbits has cost fa
upon the quality of the breeding st
the breeding stock may be figured a
and this should reduce the charge t
year for producing 200 pounds of
A rabbit hutch of good quality
litter may cost from $4 to $5. While
cheap lumber, it pays to use good
sanitary. All hutches should shed ra
during the rainy season. A dry goo
is not always suitable for a rabbit h
spent in building a good hutch sho
able investment if meat rabbits are
eat possible cost. Hutches are easily

EXTENSION SERVICE

FARM ADVISOR WORK
AGRICULTURE CLUB WORK
HOME DEMONSTRATION WORK

AGRICULTURAL EXTENSION SERVICE — U. S. DEPARTMENT OF AGRICULTURE AND UNIVERSITY OF CALIFORNIA

OFFICE OF THE DIRECTOR
COLLEGE OF AGRICULTURE
BERKELEY, CALIFORNIA

Emergency Food Production Circular

HOME MILK PRODUCTION

By G. E. GORDON

AN ADEQUATE milk supply is probably of first importance in any program designed to develop a home food supply for the farm family. This may be considered a defense measure that deserves general support. A survey of possible savings in home food production in California has shown a potential saving of about $200 a year is possible, and almost half this comes from the use of dairy products supplied by the family cow. Families having facilities for producing milk may well look into possibilities.

Optimum National Health Depends upon Use of More Milk

The establishment of an adequate supply of milk should be considered first from the standpoint of good nutrition, and this cannot be estimated in terms of money alone. Nutritionists state that the majority of people do not use as large a quantity of dairy products as would be desirable from a health standpoint. The family cow might well be used to help overcome this situation. With a good supply of milk available and for a lower cost than represented by retail prices, the family cow may be expected to prevent serious deficiencies that now exist in the diets of some families of low-income groups.

Farm Milk Supply May Be Economical

For those farms where milk is produced commercially, there should be no problem in supplying family needs, and yet occasionally there is a producer who is so desirous of increasing his cash income that the farm family is deprived of an adequate supply of dairy products simply because not enough milk is saved. This attitude is not sound because the milk that should be saved can almost invariably be produced at less expense than an equivalent amount of food can be purchased from any other source.

Where a surplus of milk has occurred, the assumption might be made that home production of milk is not justified. Such a conclusion is not necessarily sound. Several thousand cows might be diverted from commercial herds and used by families that do not now have sufficient milk and dairy products. This diversion of milk that is now going into commercial channels might be expected to affect favorably the prices which producers receive for milk and butterfat sold. It would, therefore, be beneficial to dairy producers if a greater amount of milk were retained for home use, because the health of the farm family would be improved, the cost of the family food supply would be lowered, and the economic effect on the dairy market would be favorable.

More than One Cow May Be Needed

In the larger families, or where there are additional workers on the farm to be fed, two or more family cows might be used to advantage. The use of more than one cow has the advantage of maintaining a more even milk supply throughout the year. The largest quantity of milk is produced during the first few months after the cow freshens and then gradually declines to a rather small amount during the latter months of lactation. By using two cows, the freshening periods could be arranged at approximately six-month intervals. This should result in a uniform milk supply throughout the year, whereas with only one cow there would be a dry period of at least two months when milk and butter would have to be purchased.

Basis for Home Milk Production

Home milk production is only justified when the milk supply is readily available, is safe, and is produced economically. The milk and dairy products should be attractive to all members of the family. The family dairy cow can be managed in such a way as to insure all of these conditions. Some member of the family or some employee on the farm should be responsible for milking regularly twice a day, about 12 hours apart. Normally the night and morning milking can be done without any extra expense for labor. Whoever does the milking and looks after the cow should see that the work is properly done to insure a safe milk supply. The health of the cow must also be protected.

Sanitation Is Essential

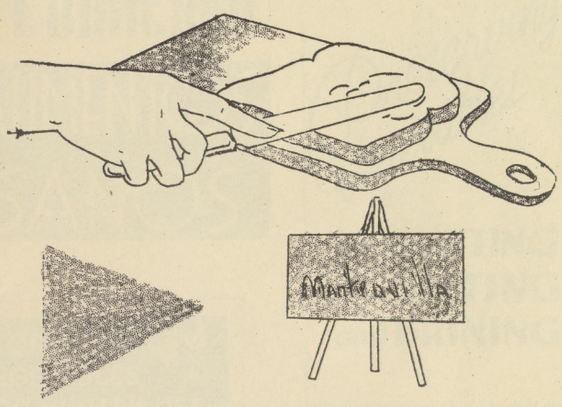
In order that the milk supply may be kept clean, wholesome, and attractive to the family, the person who does the milking must maintain proper sanitation. Utensils used in handling the milk must be scrubbed and sterilized so that the milk sup-

FAMILY PRODUCTION OF MEAT AND EGGS

CI-F 13

Preparado por:

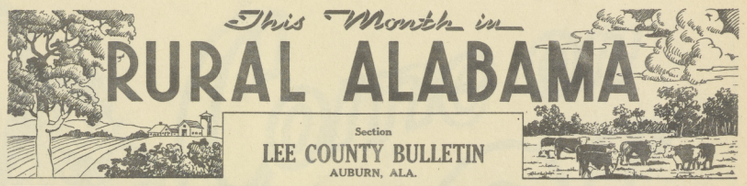
Esthor Soijo Tizol
Especialista en Alimento
y Nutrición



Servicio de Extensión Agrícola
Colegio de Agricultura y Artes Mecánicas
de la Universidad de Puerto Rico en Cooperación
con el Departamento de Agricultura
de Estados Unidos

VICENTE MEDINA BEM, Director de Extensión

45



Section
LEE COUNTY BULLETIN
AUBURN, ALA.

THURSDAY, FEBRUARY 3, 1944

Special Circular A-46 — May 1943

A BACKYARD POULTRY HOUSE

By J. Earl Cook, Extension Poultryman

The need to produce more food at home to supplement the family food supply and keep down living costs has increased interest in the backyard poultry flock. The U. S. Department of Agriculture estimates the food produced by a small well managed backyard flock at one pound of meat and eggs per day on a year-round basis.

Most new ventures in backyard poultry keeping include some sort of building program. Part of a garage or a little-used shed can be converted, or a building may have to be specially built for the flock.

Plans in this circular are for a small poultry house 6 x 8 feet, large enough for a dozen hens. As shown, it cannot be represented as inexpensive. No good construction is inexpensive these days. Corners can be cut to lessen cost and keep it more in line with a true victory production program. The house should be durable but not elaborate.

To Reduce Cost

The plan shows a wooden floor, but birds can be kept on dirt, gravel or cinder fill, tamped, and sprinkled with used crank case oil. Concrete gives greater sanitation and ratproofing, but is more expensive. Drop siding for the sides gives a tight wall if painted soon after construction. If rough native boards or used lumber are used, and do not make a tight wall cover with building or roofing paper.

The house can be built on the south side of a garage or other building. This is the cheapest building plan, and is warmer in winter. Orange crates or old, used egg cases can be substituted for built-in nests.

Both labor and building material can be saved by substituting a droppings pit for the droppings board. Over the pit build roosts of 2 x 2-inch strips spaced 1 inch apart. This spacing of strips catches eggs laid on the roosts at night. No separate roosts are needed. The birds spread uniformly over the pit at night. Build roosts 18 inches above floor and 20 inches forward from rear wall. Board up front of droppings pit.

year.
droppi
flies
soil

FEED THE FAMILY FIRST

FOOD FOR A FAMILY OF FIVE

By MARIE AMOS, Extension Food Specialist

MILK

Milk

Two good cows fresh at different seasons should supply the family with milk.

Serve each child 1 qt. of milk daily.

Serve each adult 1 pt. of milk daily.

Serve each person 2 or more tablespoons of butter daily and 2 to 8 oz. of cheese weekly.

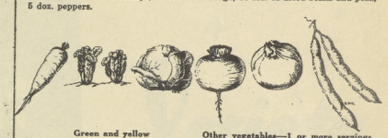
Butter

VEGETABLES

¼ to ½ acre year-round garden

Can 165 qts. of vegetables other than tomatoes for a family of five.

Store 50 lbs. of turnips, 75 lbs. of cabbage, 50 lbs. of dried beans and peas, 5 doz. peppers.



Green and yellow 1 or more servings daily

Other vegetables—1 or more servings daily other than tomatoes

POTATOES

¼ acre of Irish potatoes

¼ acre of sweet potatoes

Farm Butter Making

By
Henry B. Morrison

Folder W-16 — February, 1943

MEAT on the KITCHEN FRONT

B-94 — 1943

Homemade Metal-Drum Brooder

By J. E. Humphrey
James B. Kelley

Brooder stoves made of 2 metal barrels or oil drums have been successfully used in Kentucky for several years. The stove has one disadvantage, frequently the inner drum burns out at the end of the first season or in the second year; but it has the following merits: (1) it can be built at low cost; (2) it is easily made at home; (3) it can be removed easily from the brooder house as soon as the brooding season is over, and stored for another year; (4) it may be mounted on any kind of floor; (5) it burns either wood or coal as fuel.

Directions for Constructing Stove

1. Cut out the head of a 50-gallon oil drum with a cold chisel and hammer. Save the head to use for a stove door.

2. Cut out the head of a 30-gallon oil drum.

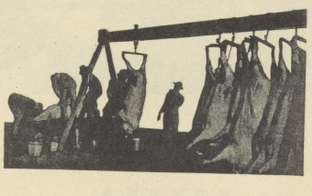
3. Lay the 30-gallon drum on its side and mark a 6" circle on it, locating the center of it 6" from the bottom of the drum, as shown in Fig. A.

4. Make a hole at the center of the circle and cut the metal in the circle into 8 equal parts along

Leaflet 46

UNIVERSITY OF KENTUCKY
College of Agriculture and Home Economics
Agricultural Extension Service
Thomas P. Cooper, *Dean* and *Director*
Lexington, Kentucky — May, 1943

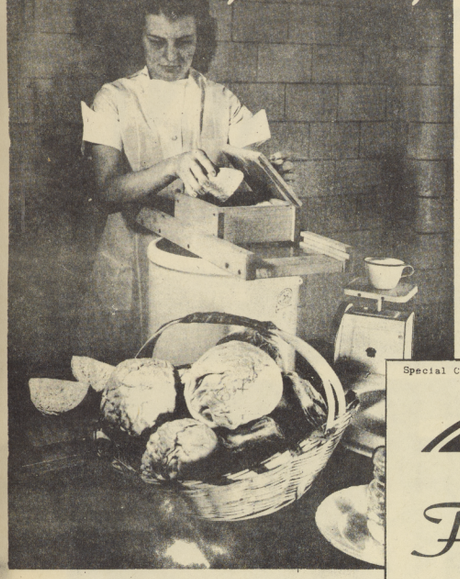
Killing and Curing Pork



Issued by
The Extension Service
Agricultural and Mechanical College of Texas and
The United States Department of Agriculture Cooperating

B-131

Preservation of Vegetables by Salting and Pickling



Come on OL'

Special Circular A-67 February 1944

1944 Food Plan for the Family

PRODUCE and CONSERVE	SHARE and PLAY SQUARE

North Dakota Agricultural College and the United States Department of Agriculture Cooperating. E. J. Haslerud, Director of Extension Service. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

EXTENSION PUBLICATION 252

KEEPING VEGETABLES AND FRUITS IN COLD WEATHER

By
W. C. Pelton, Horticulturist
Maude Guthrie, Nutritionist
Max Falkner, Architect

AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF TENNESSEE

JANUARY, 1943

Variety Meats

PRODUCE * * * *
FOOD for VICTORY
* * * IN 1943

EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING

LEAFLET NO. 46

AYUDE A SU SALUD COMIENDO ALIMENTOS SANOS

Preserving Vegetables by KRAUTING SALTING and BRINING

PRODUCE * * * *
FOOD for VICTORY
* * * IN 1943

EXTENSION SERVICE
UNIVERSITY OF ARKANSAS
COLLEGE OF AGRICULTURE
U.S. DEPT. OF AGRICULTURE
COOPERATING

LEAFLET NO. 57

HOW TO DEHYDRATE FOOD AT HOME

The Alabama Polytechnic Institute
EXTENSION SERVICE
P. O. DAVIS, Director
AUBURN, ALA.

Co-operative Extension Work in Agriculture and Home Economics, the Alabama Polytechnic Institute and the United States Department of Agriculture Co-operating — Acts of May Eighth and June Thirtieth, Nineteen Hundred Fourteen.

CIRCULAR 244 MAY, 1943

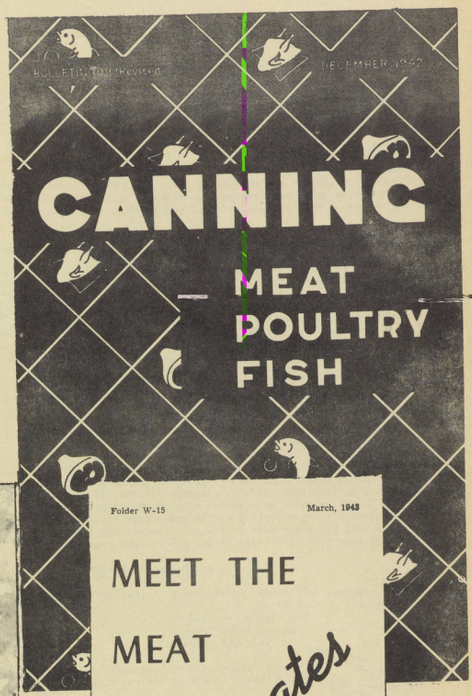
DISHES using LITTLE or NO MEAT!

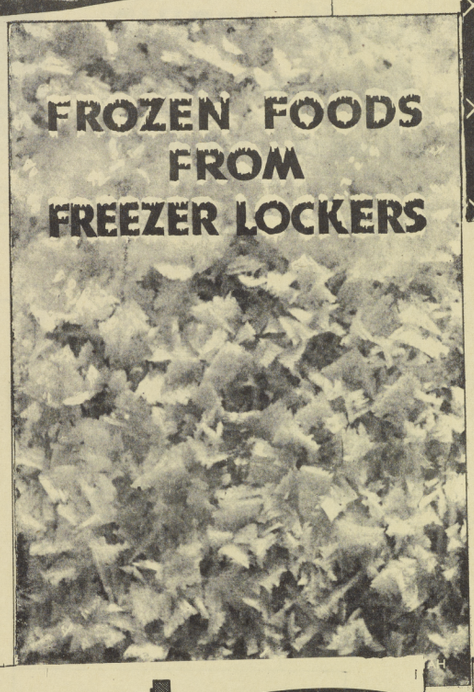
UNITED STA

This folde
Prepared by

46

Come on
Ol'





Folder W-15 March, 1943

MEET THE MEAT *Alternates*

By

Lola T. Dudgeon
and
County Home Demonstration Agents

VICTORY FOOD SERIES

College of Agriculture, Agricultural Extension Service—Co-operative Extension work in agriculture and home economics, the University of Arizona College of Agriculture and the U.S. Department of Agriculture co-operating.

Conozca las Vitaminas

Por Maria Alsina

A B1 B2 C D K

47

SERVICIO DE EXTENSION AGRICOLA. — COLEGIO DE AGRICULTURA Y ARTES MECANICAS, UNIVERSIDAD DE PUERTO RICO, EN COOPERACION CON EL DEPARTAMENTO DE AGRICULTURA DE ESTADOS UNIDOS.
A. RODRIGUEZ GRIGGS, DIRECTOR DE EXTENSION.

UNIVERSITY OF IDAHO
COLLEGE OF AGRICULTURE

FOOD PRODUCTION for WAR

WAR CIRCULAR № 22

Building a Home Dehydrator

HOBART BERESFORD

THE home dehydrator should be built to operate on whatever heating devices readily are available. Due to the shortage of critical materials, heating elements, cabinet, and tray construction must be modified to use the materials at hand. With the wide rural electrification development in Idaho many dehydrators can make use of the fan-type heater, hot plate, or a small household fan (8- to 10-inches) and a bank of lamp bulbs.

When electricity is not available, a gasoline camp stove, cook stove, or brooder stove may be substituted by building the cabinet legs high enough to clear the heaters being used. When drying is being done during the hot summer days the cabinets may be operated without supplementary heat provided the fan is used for circulating the air throughout the cabinet. A drying cabinet located on the porch or in the summer kitchen will avoid crowding the kitchen range during the busy harvest and canning season.

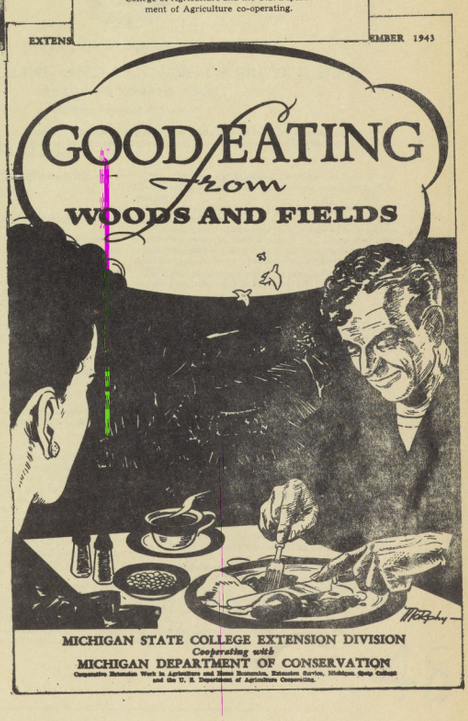
Build the Cabinet of Available Material

The cabinet box may be built from scrap lumber, plywood, or rigid insulation board. The size of the cabinet may depend upon the material available, and should accomodate trays about 1½ feet wide by 2 feet long which make a convenient size for sulphuring and drying. Many shipping cases are about the right size for the drying cabinet. Cases generally used for refrigerators or radios can be used by simply removing the bottom and hinging one side for the door. A few pieces of lumber added for reenforcing, legs, and tray strips is all that will be required.

The front door can be hinged on either the right or left side, or held in place by hooks and eyes. Screens should be placed over the bottom air inlets and over the top outlet for protection against insects or mice, as the drier frequently will be left full of dried products between filling intervals.

In the plan shown, the drying cabinet may be adapted to either natural circulation or forced circulation by means of an electric fan. The framework of the cabinet is made of 1 x 2- and 1 x 4-inch lumber using a 3-way or crate-type corner for the construction. Recirculation of air is provided by a 4-inch duct leading from top to bottom in the back of the cabinet. A cross flow of the hot air through and over the trays is obtained by alternating the end

EXTENS... ...MBER 1943



MICHIGAN STATE COLLEGE EXTENSION DIVISION
Cooperating with
MICHIGAN DEPARTMENT OF CONSERVATION
Cooperative Extension Work in Agriculture and Home Economics, Extension Service, Michigan State College and the U. S. Department of Agriculture Cooperating.

WINTER

EXTENSION SERVICE
FARM ADVISOR WORK
AGRICULTURE CLUB WORK
HOME DEMONSTRATION WORK

U.S. DEPARTMENT OF AGRICULTURE AND UNIVERSITY OF CALIFORNIA AGRICULTURAL EXTENSION SERVICE

OFFICE OF THE DIRECTOR
COLLEGE OF AGRICULTURE
BERKELEY, CALIFORNIA

FROM THE OFFICE OF THE
HOME DEMONSTRATION AGENT
ROOM 7, POST OFFICE BUILDING
RIVERSIDE, CALIFORNIA

4-H Victory Clubs

HOME FOOD PRESERVATION PROJECT

By Erna Ruth Wildermuth

The Pressure Cooker Method Is Used to Can Beans. A 4-H Club Girl Demonstrates the Method at a Community Meeting.

THE HOME FOOD-PRESERVATION project is a part of the home food-production program. The purpose is to help 4-H Club members contribute to the nation's food supply through food preservation. This
Food Production b
tionship of food p
produced food su
preservation. By
help to relieve th
health by having a
It is expected th
increase in price,

food will assume greater importance. It is recognized, also, that a larger percentage of commercial food production must go to the armed forces and the United Nations. These factors

Maine Extension
Bulletin 318 October, 1943

Meat Preservation for Home Use

By

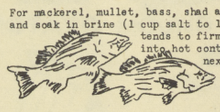
KATHRYN E. BRIWA
Extension Foods Specialist
and
GORDON M. CAIRNS
Professor of Animal Industry
College of Agriculture

CANNING FISH

Use only absolutely fresh fish. As soon as fish are caught, it is well to kill and bleed them. Bleeding delays spoilage and improves the color of the flesh. Prepare fish as for cooking. The backbone may be left in small fish -- remove it from larger ones.

Canning Fish -- Plain

For mackerel, mullet, bass, shad and other fish: Cut into pieces length of container and soak in brine (1 cup salt to 1 gallon water) sixty minutes. Soaking in salt tends to firm fish. Use brine only once. Drain. Pack tightly into hot containers, alternating heads and tails; the skin side next to the glass. Submerge the open jar in a kettle of hot brine (¼ cup salt to 1 gallon water). Boil 15 minutes. Remove containers and invert to drain 5 minutes. Exhaust, seal and process 70 minutes at 10 pounds pressure. To soften bones, process 100 minutes at 10 pounds pressure. Use pints only.



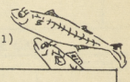
Spiced Fish

Cut fish into container length pieces and soak in brine (1 cup salt to 1 nutes. Drain about 10 minutes. Pack into pint size con- . Fill with spiced vinegar sauce half strength (diluted with r). Place in hot water to a level of 2" below top of con- o a boil and boil 20 minutes. Invert containers on a wire ut 3 minutes. Add to each container a slice or two of raw , a few mixed spices and enough full strength fresh vinegar . Add 1 tablespoon olive oil or other good oil to each con- and process immediately for 60 minutes at 10 pounds pressure.

Spiced Vinegar Sauce

erably distilled) 1 tsp. each: Whole black pepper, cloves, mustard seed, celery seed.
1 small red pepper pod
1 small clove garlic
1 whole bay leaf

d water to vinegar. Put in spices (tied ch) and allow mixture to simmer (never boil) ne.



ood Living Series XI Lesson No. 3a

GUIDES TO WARTIME CONSERVATION

laking the Best of Wartime Food

By Eloise S. Coffin, Extension Specialist in Foods and Nutrition

How have you used soybeans?
What wild fruits available in your locality are not being used?
What ways have you found more successful for getting your family to like new vegetables?
What foods have you used to replace the fruit formerly eaten?

WAR brings rapid change in our way of doing things. Science and industry move forward in sweeping strides. New discoveries in medicine save lives of the wounded as well as of those home, and thus compensate in part for lives lost in war.

Food, too, has gained new significance. We have become are that life and strength can be saved with the proper foods, ice nutrition has risen to new importance. We are constantly ng reminded that "Food Is a Weapon," that "Food Fights for edom," or "Food Will Win the War and Write the Peace."

For many years we have taken food for granted, thinking "we have plenty to eat." But now, many familiar foods have become scarce in the local market place, for they are being served to our armed forces and our allies. Furthermore, we have come to realize that food has been scarce and thus precious to at least one-third of our population even during our years of "plenty." They did not grow their food, neither did they have money to buy a proper amount.

Now, because of wartime conditions, full employment and relatively high wages, many of this underfed third of our people have money to buy more food, and are in the market for their share. But the supply even though greater than ever before must now stretch over many new demands.

This scarcity has not yet become
we have been hungry. For many, it m

sion Bulletin 284 August, 1942

Stretching Your
SUGAR SUPPLY
with—

- *HONEY*
- *MOLASSES*

UNIVERSITY OF IDAHO
COLLEGE OF AGRICULTURE

FOOD PRODUCTION for WAR

WAR CIRCULAR № 19

Preservation of Fruits and Vegetables by Drying

MARION M. HEPWORTH

AS the season advances and vegetables from Victory Gardens mature, and fruits ripen, it is advisable to conserve them by drying those that are suitable. The shortage of sugar and possible limitations of containers make drying one of the food preservation methods that should be given careful consideration.

General Directions for Drying

Select the product as carefully as for table use. Material that is inferior before drying cannot make a good product. Use extreme care in washing and preparing the material to insure cleanliness. Pare, slice or cut up as suited to the particular product. Steam or blanch the product in a colander until each piece is relaxed. Drain well. Spread in single layers, preferably on cheese cloth or netting-covered wire screens. Dry as rapidly as possible, stirring occasionally. Care must be taken if artificial heat is used, particularly after the food is half dried, to prevent even the slightest amount of scorching which will impair the flavor. Do not allow temperature to go above 155° F. Use a thermometer. When vegetables are bone dry, cool and store immediately in dust-proof and insect-proof containers.

Vegetables

(1) Use vegetables fresh from the garden in prime condition.
(2) Wash, sort, trim, and prepare vegetables by paring, slicing, shredding, etc.
(3) Blanch the prepared vegetables by steaming, previous to drying. Steaming saves soluble food materials, sets the color, removes objectionable flavor, hastens drying by relaxing the tissues, checks ripening processes, and prevents undesirable changes in flavor. It is preferable to boiling water.

cial Circular A-20 May 1942

CAN!
CAN!
CAN!

for the Family and for Uncle Sam

NORTH DAKOTA AGRICULTURAL COLLEGE
EXTENSION SERVICE
E. J. HASLERUD, Director
Fargo, North Dakota

Cooperative Extension Work in Agriculture and Home Economics, the North Dakota Agricultural College and the U. S. Department of Agriculture cooperating. Published and distributed in furtherance of the Act of Congress of May 8 and June 30, 1914.

EXTENSION SERVICE
FARM ADVISOR WORK
AGRICULTURE CLUB WORK
HOME DEMONSTRATION WORK

U.S. DEPARTMENT OF AGRICULTURE AND UNIVERSITY OF CALIFORNIA AGRICULTURAL EXTENSION SERVICE

OFFICE OF THE DIRECTOR
COLLEGE OF AGRICULTURE
BERKELEY, CALIFORNIA

NUTRITION PROGRAM IN WAR

HOME BOTTLING AND CANNING OF FRUIT JUICES

INCLUDING TOMATO JUICE

By Hilda Faust and M. A. Joslyn

ome preservation of food, it is important that the methods insure safe, palatable food in which the nutrients have been ned as far as possible; that the methods can be followed easily and be safe for the operator; and that they can be carried nder the conditions of priorities and rationing.

EXTRACTING AND PREPARING FRUIT JUICES

lect the fruit carefully:
se only sound fruit for juice. Off-size, off-shape, or surface-ished fruit may be used.
o not use moldy or decayed fruit. *Even a small proportion* ch fruit gives an off-flavor to the volume of juice and s processing less certain.
ash the fruit carefully.
o help prevent loss of vitamin C and change in flavor: ve everything ready for carrying the canning or bottling mpletion in the shortest possible time, before extracting ice.
xtract the juice as rapidly as possible.
eat and can or bottle immediately after extracting. Extract an or bottle a limited quantity of juice before extracting her quantity.

ANNING OR BOTTLING FRUIT JUICES OTHER THAN TOMATO JUICE

n-Kettle Methods

llect the equipment and prepare the jars, lids, and rubber , or bottles and caps before extracting the juice. See s 2 and 3.

out a Thermometer

is method is more rapid than the double-boiler method requires no thermometer, but the juice has a cooked taste. After the juice is extracted, heat it over direct heat. Bring the simmering point immediately after extraction. Juice ering (that is, the surface of the juice just rippling) es a temperature of about 204° F.
Drain several hot jars and put the rubber rings in place ss lids with rubber compound are used). Bring the juice to the simmering point, immediately fill the hot jars to p with the hot juice but not to overflowing, put on the lids, completely, and invert for 2 or 3 minutes or longer to ize the lids and to test the seals.
etal lids held with clamps are used, put on 2 clamps at right angles.
bottles are being used, drain the hot water from one bottle, with the heated juice using the hot funnel, and cap the e. Immediately turn the hot bottle upside down for 2 or 3 tes or more to sterilize the cap and to test the seal, or place s side immediately after filling and turn it while still hot.

Drain, fill, and seal another bottle. Continue until all are filled, keeping the juice very near the simmering point while working.

3. To avoid breakage, do not set the hot filled jars or bottles on a cold surface or in a draft.

4. To cool, leave room between them or follow the directions for Cooling Juices in Cold Water. If jars having lids with rubber composition are used, keep on the screw bands or the metal clamps until the jars have cooled completely.

The higher the temperature of the juice at the time of filling the container, the more head space will be formed during cooling.

With a Thermometer

A chemical thermometer or an accurate dairy thermometer may be used. Test the accuracy at the boiling point by holding the thermometer in boiling water. It should register about 210° to 212° F, if the altitude is below 1,000 feet.

This method is more rapid than the double-boiler method but the fresh flavor is retained less well.

1. After the juice is extracted, heat the juice over direct heat, using an asbestos mat if one is available.

2. Stir the juice gently, using a wooden spoon or paddle, until a temperature of 190° F is reached. Test with a thermometer. Do not let it rest on the bottom of the pan and have it in the juice only when reading the temperature.

Do not let the temperature of the juice fall below 185° F during filling.

3. Can or bottle the juice as directed in the preceding method. The juice, however, is at a temperature of 185° to 190° F instead of at the simmering temperature.

Double-Boiler Method

Collect the equipment and prepare the jars, lids, and rubber rings, or bottles and caps before extracting the juice. See pages 2 and 3.

This method also requires the use of a thermometer.

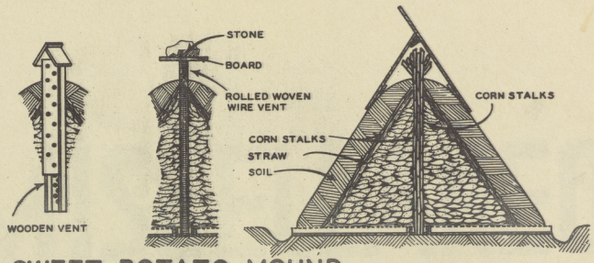
The fresh flavor of the juice is retained very well.

1. Pour enough boiling water in the lower part of the double boiler so that when the upper part is put in, the water will come up around it but not overflow when boiling. Bring the water to a full boil.

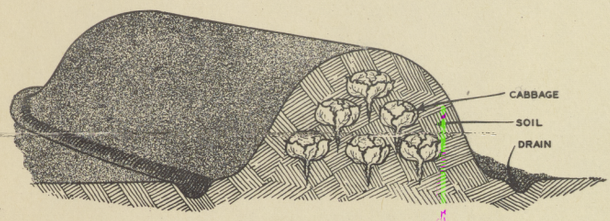
2. Pour the juice into the top part of the double filling only up to the flange.

48

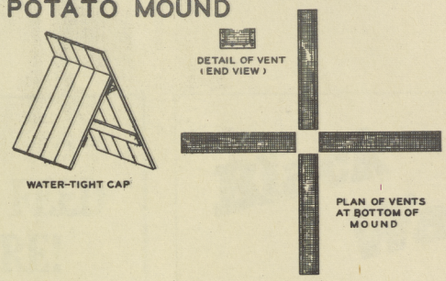
INEXPENSIVE METHODS FOR STORING FRUITS AND VEGETABLES

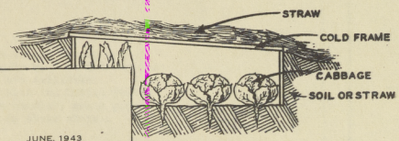


SWEET POTATO MOUND

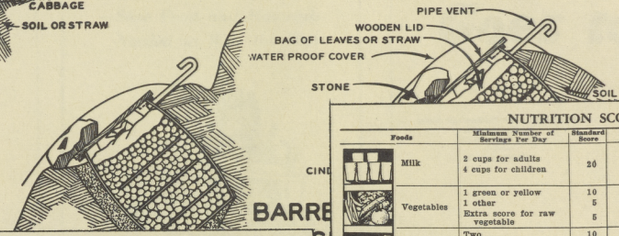


CABBAGE MOUND





D FRAME



CIND

BARRE

CIRCULAR 174 JUNE, 1943

Vegetable Preservation Handbook For Wartime Use

BY

JESSIE E. RICHARDSON

AND

HELEN L. MAYFIELD

DEPARTMENT OF HOME ECONOMICS

MONTANA STATE COLLEGE

NUTRITION SCORE CARD

Foods		Minimum Number of Servings Per Day	Standard Score	Your Score
	Milk	2 cups for adults 4 cups for children	20	
	Vegetables	1 green or yellow 1 other Extra score for raw vegetable	10 5 5	
	Fruits	Two Extra score for raw fruit or canned tomatoes	10 5	
	Potatoes or Potatoes Sweet	One	5	
	Eggs	One, at least	10	
	Lean meats, poultry, or fish*	One	10	

Your part in VICTORY

Women Leaders in the Wartime Educational Program in Illinois:

Will you help answer a question which is of vital concern to our nation?

How much food did you can, store, or otherwise preserve in the present (1943) season?

If we know what you did, we can estimate what the state of Illinois did. In Washington the figures from all the states will be compiled and used as the basis of planning an ample supply of food-preservation equipment for 1944.

Will you please fill out, detach, and mail the inclosed card NOW — no postage is required.

Grace B. Armstrong

Urbana, Illinois
October, 1943

Cooperative Extension Work in Agriculture and Home Economics; University of Illinois, College of Agriculture, and U. S. Department of Agriculture cooperating

Extension Nutritionist and Chairman, Farm Family Food Supply Committee

Through FOOD CONSERVATION

RATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF VERMONT
J. E. Carrigan, Director
(Acts of May 8 and June 30, 1914)
f Agriculture, University of
nd U. S. Department of
e, Cooperating

Extension Service
Burlington
Vermont

EXTENSION CIRCULAR 133 REVISED MAY 1942

erative Agricultural Extension Work with the U. S. Department of Agriculture. Acts of Congress of May 8 and June 30, 1914.

Extension Folder W-10 October, 1942

PRODUCTION FOR VICTORY—MORE FOOD ON ARIZONA FARMS

LAMB AND MUTTON FOR THE HOME MEAT SUPPLY

PREPARED BY
J. T. RIGDEN

Utilizers of Noncrop Farm Land

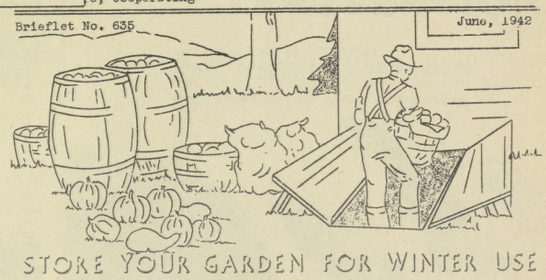
High food prices and shortage of transportation facilities as well as products themselves make the "Live at Home Program" important, especially during the present emergency. Producing these supplies at home is becoming a patriotic duty as well as a necessity if the family is going to continue having an adequate diet.

Raising sheep can be a side line and not the main source of farm income. The farm flock has the following advantages as a source of the home meat supply:

1. Little capital is needed to start a small flock of ewes.
2. Farm flocks require little labor during rush seasons.
3. Lambs are ready for market or home use 10 to 12 months after the ewes are bred.
4. Sheep produce two products—meat and wool.

Co-operative extension work in agriculture and home economics, the University of Arizona College of Agriculture and the U.S. Department of Agriculture co-operating.

Brieflet No. 635 June, 1942



STORE YOUR GARDEN FOR WINTER USE

By Louise Stollberg, Extension Nutritionist

An adequate garden should provide fruits and vegetables, not only to be served fresh on the family table during the growing season, but also for the family's use during the winter months. Some foods must be canned for winter preservation. Others may be successfully kept by different methods of preventing spoilage. When suitable storage room is available, dry storing certain vegetables and fruits is a practical means of providing food for winter use. Occasional servings of celery, cabbage, turnip, or other vegetables throughout the winter help to relieve the monotony that may result from a too steady diet of canned vegetables. Properly stored, these vegetables also contribute many essentials to the family diet.

For persons whose gardens produce foods in large quantities storage is quicker and easier than other methods of food preservation. Whether vegetables suited to storage are grown in the home garden or are purchased in large amounts, it is an economy to arrange good storage conditions for the winter supply.

ESSENTIALS OF SUCCESSFUL STORAGE

Successful storage depends upon:

1. Sound vegetables of proper maturity
2. Correct temperature
3. Good moisture conditions
4. Ventilation facilities
5. Sanitation and freedom from rodents
6. Suitable storage containers and locations

MISCELLANEOUS

BULK HANDLING

FEWER SACKS - The Army needs Jute & Sacks

FEWER LABORERS - The war effort need men

NOT ENOUGH TANKS OR ELEVATORS
War machines Need Steel

The grain crop in San Luis Obispo County and California will be handled largely by bulk methods and the small number of sacks that are available.

The farmer will cooperate with the United States Government and find a way. The handler, grain processor, and livestock feeder must also do their share.

Prepared by the
Agricultural Extension Service
of
San Luis Obispo County

CIRCULAR NO. 299 JUNE, 1942

DON'T FEED a FIRE!

—Save Food and Materials Needed to Win the War

THE UNIVERSITY OF GEORGIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE
WALTER S. BROWN, *Director*

This circular is published and distributed in furtherance of the purposes provided for in the Acts of Congress of May 8 and June 30, 1914. Cooperative Extension Work in Agriculture and Home Economics, Regents of the University System of Georgia, and the United States Department of Agriculture Cooperating

---

Black Walnut Goes to WAR

UNITED STATES DEPARTMENT OF AGRICULTURE
EXTENSION SERVICE
WASHINGTON, D. C.

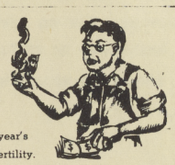
OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID PAYMENT OF POSTAGE, $300

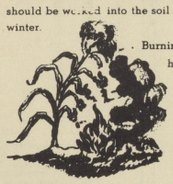
This folder is sent to you as part of a walnut-marketing service being carried on by your farm adviser and the University of Illinois College of Agriculture

---

You Wouldn't *BURN* Money



Why waste labor to burn vegetation? This part of your last year's crop is money in the form of soil nutrients. This valuable organic matter should be worked into the soil in early or late winter.



Burning wastes one year's harvest of soil fertility.

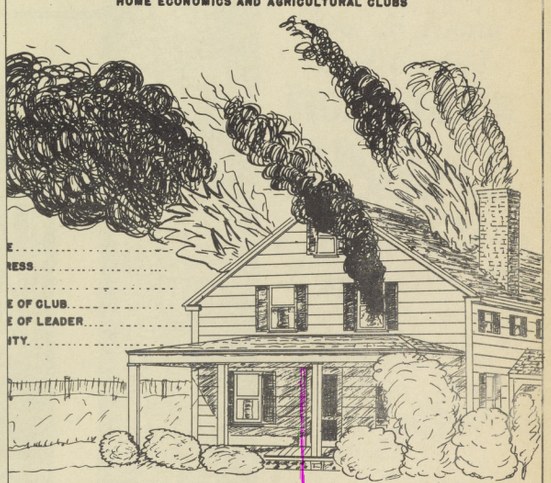
Each ton of vegetation burned from the land---a ton of lost nutrients---could be replaced only by cash expenditures as follows:

Corn stalks - $2.25	Lespedeza stems - $3.30
Wheat straw - $2.40	Forest litter - $1.50
Cotton hulls - $4.65	Cotton stalks, etc - $3.00

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U. S. DEPARTMENT OF AGRICULTURE AND UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE COOPERATING

RURAL FIRE PREVENTION

AN ACTIVITY FOR
NORTH DAKOTA 4-H CLUB MEMBERS
HOME ECONOMICS AND AGRICULTURAL CLUBS



NAME.....
ADDRESS.....
.....
NAME OF CLUB.....
NAME OF LEADER.....
COUNTY.....

The North Dakota Agricultural College
EXTENSION SERVICE
E. J. Haslerud, Director
Fargo, North Dakota

Cooperative Extension Work in Agriculture and Home Economics, the North Dakota Agricultural College and the U. S. Department of Agriculture cooperating. Published and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

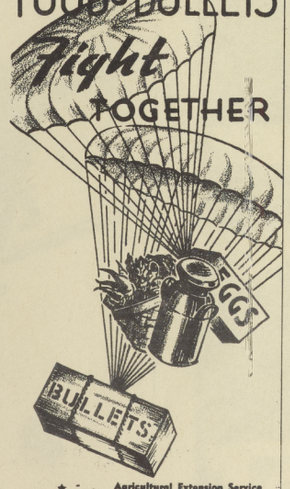
4-H Circular 67 September 1943

Washington 1944 4-H Club Program

"Make the Best Better"

AGRICULTURAL EXTENSION SERVICE
The State College of Washington
Pullman, Washington

FOOD & BULLETS *Fight* TOGETHER

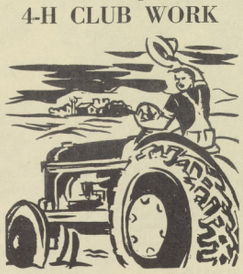


FOOD FOR FREEDOM

Agricultural Extension Service
University of Vermont
and
State Agricultural College
Burlington, Vermont
Brieflet No. 694 February, 1944

NEVADA BOYS and GIRLS

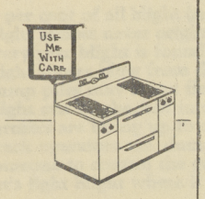
PRODUCE FOR VICTORY
through
4-H CLUB WORK



AGRICULTURAL EXTENSION SERVICE
UNIVERSITY OF NEVADA • RENO

Special Circular A-30 February 1943

Your Stove Must Last

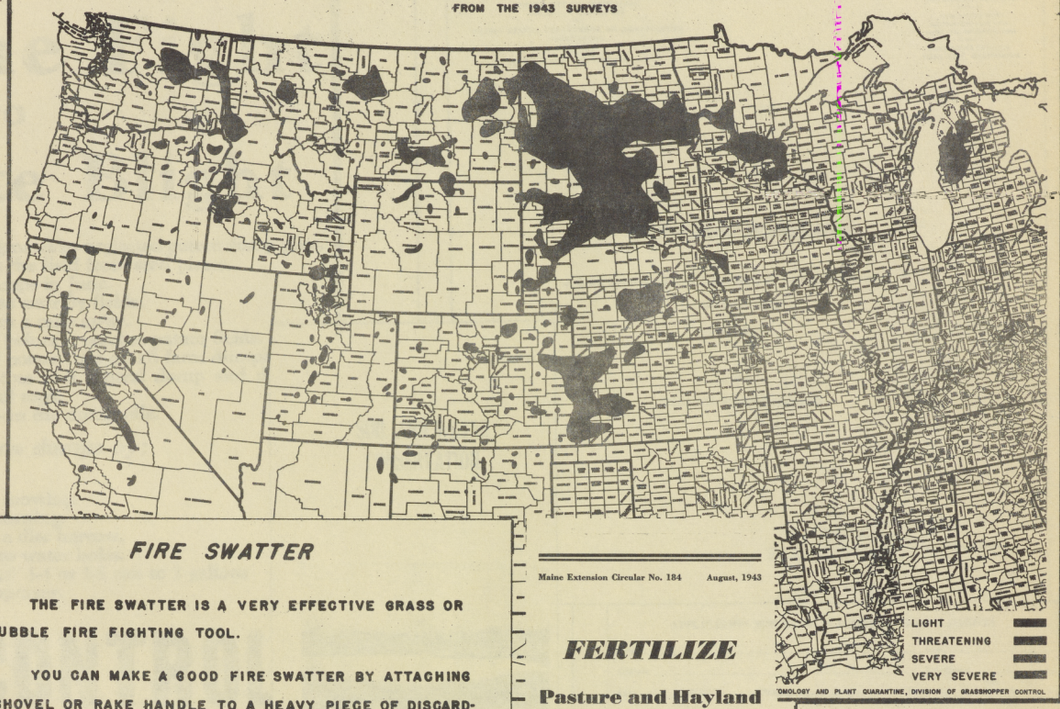


Fuel Wood *and the* War

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
State of Oklahoma
SHAWNEE BROWN, *Director*, Stillwater
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

GRASSHOPPER INFESTATION EXPECTED IN 1944

FROM THE 1943 SURVEYS

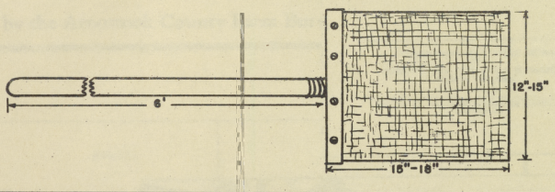


OMOLOGY AND PLANT QUARANTINE, DIVISION OF GRASSHOPPER CONTROL

FIRE SWATTER

THE FIRE SWATTER IS A VERY EFFECTIVE GRASS OR STUBBLE FIRE FIGHTING TOOL.

YOU CAN MAKE A GOOD FIRE SWATTER BY ATTACHING A SHOVEL OR RAKE HANDLE TO A HEAVY PIECE OF DISCARDED BELTING OR CARPETING, OR TO SEVERAL PIECES OF CANVAS OR GUNNYSACKING SEWED TOGETHER.



Maine Extension Circular No. 184 August, 1943

FERTILIZE

Pasture and Hayland

THIS FALL

- **Fertilizer is Available**
- **Fall Application Saves Labor**
- **Fall Fertilization is as Effective as Spring Application**

EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
OF AGRICULTURE AND STATE LAND-GRANT COLLEGES COOPERATING
TURAL AND MECHANICAL COLLEGE OF TEXAS

WEEKLY FARM LABOR REPORT FOR WEEK
ENDING FRIDAY.....1943
County..... Date.....

MAIL TO STATE OFFICE EVERY FRIDAY

1. No. workers ordered by farmers during week .....
2. No. workers sent to farmers during week .....
3. No. non-farm people working on farms during week:
   a. Town and city adult.....
   b. Town and city youth.....
   c. War prisoners .....
   d. Migrants .....
4. Est. no. workers available for farm work next week .....
5. Is there sufficient labor to meet needs in county next week .....
6. If out-of-county labor is needed, how many..... Type of work.....
   .....
   .....
7. Estimate no. of workers leaving county during week to do farm work.....

Missouri

4H WAR PROJECTS

1944

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXTENSION SERVICE

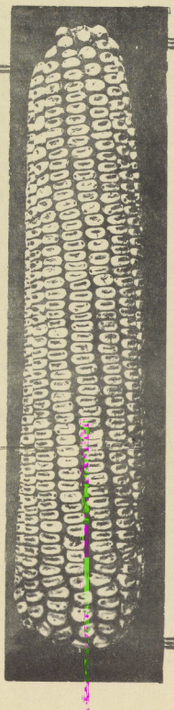
MANUAL 32 Columbia, Mo. NOVEMBER, 1943

VENISON

from FOREST to TABLE

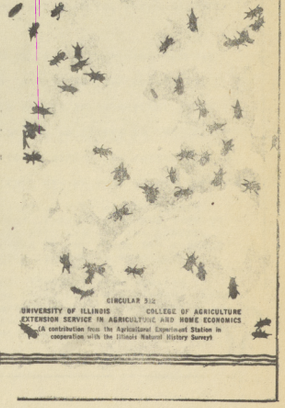
Michigan State College
EXTENSION DIVISION
with the Cooperation of
MICHIGAN DEPARTMENT of CONSERVATION

Michigan State College of Agriculture and Applied Science and U. S. Department of Agriculture cooperating. R. J. Baldwin, Director, Extension Division. Printed and distributed under acts of Congress, May 8 and June 30, 1914.



How to Know and Control

STORED-GRAIN INSECTS



CIRCULAR 312
UNIVERSITY OF ILLINOIS COLLEGE OF AGRICULTURE
EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS
[A contribution from the Agricultural Experiment Station in cooperation with the Illinois Natural History Survey]

51

Join The Fight
TO
Eliminate Blight

1. 98 per cent of all blight (rust) originates in neglected potato dump piles.
2. Blight almost never originates in the field from seed pieces.
3. Every year blight is found on dumps in June.
4. Blight spores blow from dumps to near by fields.
5. Dump piles may infect fields even a mile away.
6. Blight can be checked in dumps before it reaches potato fields.
7. Farmers are lining up to control potato tops on all farm dumps
8. Track operators can dump potatoes at a central dump and d someone to control the growth of tops.
9. Let's fight blight where it starts--in the dump pile.

Tops can be controlled on dumps by:

1. Hand pulling tops.
2. Careful and frequent mowing.
3. Piling on straw and burning.
4. Discing the pile with a disc harrow.
5. Dumping potatoes into water holes.
6. "Adam's Handy Killer" 1-4 or 1-5 can to 2 gallons water in a hand sprayer.

DUMP CONTROL
MEANS
BLIGHT CONTRO

This Program is Sponsored by the Aroostook County Farm Bur

CO-OPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF CALIFORNIA

UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
AND
UNITED STATES DEPARTMENT OF AGRICULTURE
CO-OPERATING

OFFICE OF
THE FARM ADVISOR OF SUTTER COUNTY

EXTENSION SERVICE
FARM ADVISOR WORK
AGRICULTURE CLUB WORK
HOME DEMONSTRATION WORK

POST OFFICE BUILDING
YUBA CITY, CALIFORNIA

THE BURLAP PROBLEM AND BULK HANDLING

A Contribution Of The Agricultural Extension Service Of
Sutter County
California

In The
FOOD FOR VICTORY CAMPAIGN

County Agent, U.S.D.A.

OF-94

SOIL AND WATER
CONSERVATION

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Oklahoma
Shawnee Brown, *Director*, Stillwater
OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE
AND UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATING

APPLICATION FOR FARM PLACEMENT—NORTH DAKOTA

Name _____ Date _____
Address _____ Telephone _____
Age _____ Height _____ Weight _____ Single _____ Married _____ War Veteran _____
Present employer: _____
When available _____
How long available _____
Check work you can do:
General farm work _____ Drive horses _____
Operate grain binder _____ Drive tractor _____
Operate hay mower _____ Drive truck _____
Drive bundle team _____ Pick corn _____
Help with chores _____ Shock grain _____
Other (explain) _____

Check time available:

Day	A.M.	P.M.
Mon.		
Tues.		
Wed.		
Thur.		
Fri.		
Sat.		
Sun.		

Signed _____

#440131

PEACH GROWER HAD A CROP
IN SPITE OF THE DROUGHT

Good soil management made a fair crop of fruit and better quality fo
Gardenhour Brothers near Smithsburg in 1943, in spite of the drought. Th
tional fruit was badly needed and at the same time profitable that year.

Mr. Gardenhour credits his soil management practices with 50 cents a
extra value, and says that he had a yield of about 300 bushels to the acr

Eight or more years ago Mr. Gardenhour became alarmed at his losses
soil. He noticed that he could not bring production of his trees on the
up to that of trees on the tops of the hills, or on the more level areas
orchards. Fertilizer, no matter how much he applied, would not keep the
equal to that of the trees in the more fertile areas.

He noticed also that with each rain small quantities of soil left th
Contour-planted trees and use of terraces looked like the solution.

Today Gardenhour has 164 acres of his orchard terraced and another 20
planted on the contour. These mechanical measures, plus the excellent co
system, have built up the soil fertility and organic matter content of his
so that he was able to go into the drought with enough of moisture in the
give him a three or four weeks' advantage over his neighbors who used no
servation methods.

Mr. Gardenhour is using a mixture of domestic rye grass and vetch as
cover crop in the peach orchards. He is seeding down in the middle of the
after his peach crop is off. This crop makes a good growth and is disked
in the spring at a time when it will not compete with the peachas for mois
A permanent bluegrass sod is used for cover in his apple orchard.

###

COLDFRAMES—HOTBEDS—FLATS
IN NEVADA

Agricultural Extension Service
UNIVERSITY OF NEVADA
Bulletin 93

OCTOBER 25, 1943

LEAVES MUST BE DECAYED TO
AID GARDEN SOIL

FALLEN LEAVES, IF PROPERLY HANDLED, MAY BE USED TO ADVANTAGE BY
AND SUBURBAN RESIDENTS TO IMPROVE THE CONDITION OF GARDEN SOILS,
S W. C. PELTON, EXTENSION HORTICULTURIST, U-T COLLEGE OF AGRI-
RE.

NEITHER LEAVES NOR STRAW NOR DRY CORN STALKS IMPROVE SOIL UNTIL
ARE DECAYED. BEFORE THAT TIME THEY MAY ACTUALLY BE HARMFUL IN
OIL. THIS IS ESPECIALLY TRUE OF LEAVES, SINCE THEY MAY PREVENT
TURAL MOVEMENT OF SOIL WATER UPWARD AND DOWNWARD. A MASS OF
VED LEAVES JUST BELOW PLANTS DURING A DROUTH WOULD GREATLY IN-
THE BAD EFFECTS OF THE DROUTH. LEAVES ADDED TO THE SOIL IN FALL
OT BE WHOLLY DECAYED IN MUCH LESS THAN A YEAR, UNLESS FERTILIZER
D WITH THEM, AND UNTIL THEY ARE DECAYED THEY WILL NOT BE HELPFUL.
S ESPECIALLY TRUE OF OAK LEAVES AND PINE NEEDLES, WHICH DECAY
LOWLY, MR. PELTON SAYS.

HERE ARE THREE PLANS FOR DISPOSING OF LEAVES THAT WILL BENEFIT
SOILS WHEN CARRIED OUT. ONE PLAN IS TO STACK THE LEAVES IN
WITH VERTICAL SIDES, AND WITH SEVEN POUNDS OF COMMERCIAL TRUCK
LZER TO 100 POUNDS OF DRY LEAVES, SPREAD ON LAYERS OF THE LEAVES
PILES ARE BUILT UP. A GOOD PLAN IS TO SPREAD THE FERTILIZER
VES RECENTLY MADE DAMP BY RAIN, BEFORE RAKING THEM UP FOR THE PILES.

HE SECOND PLAN IS TO SPREAD THE LEAVES ON PART OF THE GARDEN
WILL BE USED FOR LATE CROPS NEXT YEAR, ESPECIALLY LARGE GROWING
LIKE CORN, TOMATOES, POTATOES. WHEN RAIN HAS WET THE LEAVES,
LE ON THEM TRUCK FERTILIZER AT THE RATE OF ONE POUND FOR A SPACE
ET SQUARE, AND SPADE OR TURN THE SOIL AS SOON AS POSSIBLE.

HE THIRD PLAN IS TO BURN THE LEAVES, TOGETHER WITH REMAINS OF
PLANTS AFTER FROST, AND SPREAD THE ASHES OVER THE GARDEN. LIME
TASH IN THE ASHES WILL HELP MOST GARDEN SOILS. SINCE BURNIN
DEN WASTES IS GOOD BUSINESS FOR OTHER REASONS, IT IS OFTEN W
LEAVES AND SO MAKE MORE ASHES, MR. PELTON SAYS.

#

52

#440207

HAY LOSES VALUABLE VITAMIN DURING THE STORAGE PERIOD

Where it is necessary to feed two-year-old hay, use it once a day and hay made during the current season for the other feeding is the advice of Dr. L. A. Moore of the University of Maryland dairy husbandry department.

Hay gradually loses carotene, the pro-vitamin A, during the storage months previous to feeding, Dr. Moore says. It may lose as much as 10 percent of its carotene each month during the cold period, and that rate of loss may be doubled in the warm summer months. For that reason, he points out, two-year-old hay has lost the greater part of its carotene, even though it still appears bright and green. That is why he advises against feeding it as the only roughage for an extended period.

Carotene is essential for the health and reproduction of cattle, Dr. Moore states. Its deficiency in the ration will cause retention of placental membrane and production of weak, blind and paralyzed calves. While deficiency of carotene in the ration of cattle in Maryland is not common, he says, it has developed under unusual circumstances. It will develop when the hay fed is of exceptionally poor quality, or if the hay is of good quality and not enough is fed. Feeding two-year-old hay is another possible cause of deficiency. Still another possible cause is wintering the herd on straw and stover.

One feeding each day of hay that is of good quality is advised to avoid the difficulty. Hay of good quality and high in carotene must be produced, according to Dr. Moore, so that when fed it will still contain considerable carotene despi the storage loss. Such hay, he says, can be produced by cutting early and using

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

(Acts of May 8 and June 30, 1914)

AGRICULTURAL EXTENSION SERVICE, UNIVERSITY OF FLORIDA
FLORIDA STATE COLLEGE FOR WOMEN
AND UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATING
WILMON NEWELL, Director

PREVENT FARM FIRES

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RURAL FIRE PREVENTION 4-H RECORD BOOK

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Years in Club Work ..... Grade in School .....
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PUBLISHED MONTHLY AT THE OKLAHOMA A

VOLUME XXV

3-5-6

The Old South Was Never Like This

Cotton Crop Picked With Grain Combine

One of the greatest advancements in the production of cotton since Eli Whitney invented the cotton gin in the 18th century may be taking place near the little community of Carpenter in Kiowa county where a grain combine is being used to harvest cotton.

The machine was arranged for this purpose by Lowell Hoepfner, a 21-year-old farmer. Its first performance was the statement of W. G. Hodgson on whose farm the equipment was operating when the editor came down there. Hodgson said, "That combine, operated by one man, covered 24 acres of last-picking cotton in about six hours. This is 20 times as fast as an ordinary snapper could have gathered the cotton, and it cost only about half as much." Hoepfner charges 50 cents per hundred pounds for his work.

On the last picking, Hodgson estimated he could gather about [illegible] pounds of cotton. In cotton growing [illegible] from one-third to one-half less per acre, Hodgson believes the combine can operate 20 to 25 times as fast as a single snapper.

Tom Morris, Kiowa county agent, said, "I believe there will be a lot more cotton harvested with this type of equipment in the county because it operates so fast and inexpensively. It will certainly help solve our labor shortage problem."

So far as farmers in Kiowa county know, this is the first effort to combine cotton on a fairly large scale. The equipment has been used to harvest 200 acres of cotton to date, and enough more requested to make a total of 500 acres. The grade of cotton harvested with this machine is the same as hand-pulled cotton.

This man Hoepfner, and his father, E. P. Hoepfner, last year took a combine into a field and harvested some cotton, just to see how it would work. Then young Hoepfner, who had devised a number of ingenious labor-saving devices about the farm, set himself to the task of destoning up the combine as a cotton harvester.

He obtained a five-foot combine and placed steel snapping fingers on the ground where the cycle bar is located on a grain combine. These long fingers spread out over two rows of cotton and strip the stalks clean. The reel was slowed down to move just fast enough to push the cotton back upon the canvas.

After the cotton stalk is stripped, the cotton, burrs, and dead leaves are conveyed up the canvas to the cylinder. For cotton harvesting, the beater-type cylinder has been slowed down and opened wide. The cotton then goes from the cylinder into a wire-enclosed catch-bin attached to the back of the combine. Much of the dead leaves and trash blow through the wire, but cotton is deposited in the bin.

This bin is constructed to hold about 500 pounds of cotton, which can be emptied in a few moments near a trailer at the end of the rows. For unloading, Hoepfner has placed hogwire in the bottom of the bin. At unloading time, he drives a stake behind the bin, ties a rope to the front end of the hogwire in the bottom of the bin, starts the combine forward, and the cotton is rolled out easily.

Hoepfner bought the combine second-hand for $35. Labor and new pieces of equipment such as belts, cog wheels, and the like, plus labor he charged against himself, made the machine cost $200.

Just how revolutionary this machine will be in harvesting cotton remains to be seen, but Hoepfner's neighbors are enthusiastic about the prospects.

The combine cannot be used until the leaves of the plant are dead and about ready to fall. For much of southwestern Oklahoma, cotton plants are in this condition when about one-third of the yield remains to be harvested. This means that under ordinary conditions, about one-third of the crop could be harvested with this type of equipment.

There are other problems still to be solved. For instance, if some of the bolls are still green at combining time and the cylinder burrs them open, this would tend to dampen the cotton and cause it to show a poorer sample. The problem wasn't pressing this year because of dry weather. Practically every boll was dry at combining time.

Because this combine cannot operate when leaves are green on the stalk, E. P. Hoepfner believes a chemical treatment may be applied to the plants to cause the stalks to drop leaves after the plant has completed fruiting and the bolls are ready to open, thereby giving the combine a chance to start work in the cotton earlier.

One farmer in the community projected the idea that cotton could be planted and not picked or snapped at all until the leaves begin to drop, and then let the combine do the whole job. He pointed out, however, that bad weather conditions might cause loss of some of the cotton if harvesting is delayed.

In a sense, this combining of cotton is a fast and improved way of sledding cotton, though it is much faster and less manpower is required. The combine also removes more of the dirt as the cotton passes through the cylinder. A one-row sled usually requires two men for operation and a two-row sled requires three men. Only one man is necessary to operate the cotton combine.

The future development of this cotton combine takes on new importance in the light of pressing farm labor shortages. Farmers had to use every available source of labor to get in the cotton this year, and some of it still has not been harvested. Indications are now that the labor problem will be still more pressing next year.

The economic significance of this machine is challenging. If the flaws are worked out of it and other problems overcome, it means that in the future cotton may be harvested far more quickly and at considerably less cost.

Farmers who have had their cotton harvested with this combine say that it grades as well on the market as that snapped by hand. And these farmers have also been able to get loans on the cotton.

As the cotton goes through the cylinder of the combine and back into the catch-bin, dead leaves mix with the cotton. But this does not present too great a problem if the cotton is dry. Ginning equipment removes this waste material.

It's a thrilling experience to watch Hoepfner's combine travel along at six miles an hour and harvest two rows of cotton.

Perhaps Hoepfner's development is another important chapter in the versatility of the combine. These combines, originally developed as small grain harvesters, also are used for grain sorghums. Then last year a Wagoner county farmer -- Ralph Stone -- made adjustments on a combine to turn it into a spinach harvester. And Henry Payne of Tillman county made additions and adjustments on a combine to turn it into a grass seed harvester.

And now, Hoepfner is combining cotton.

INDIANA FARM NEWS

Here is the latest Indiana Farm News. Facts and items of interest from [illegible] University's Agricultural Extension Service and Experiment Station, in [illegible]ration with county agricultural agents and the United States Department [illegible]riculture.

(For use Friday, December 17, 1943)

Next year, many farmers growing war crops may find they're plowing a straight furrow toward better living after the war. In other words -- many of the changes farmers are now making to meet our [illegible]eds at home and abroad will fit right in with the after-the-war plans.

For example, in order to provide enough milk for the 140 million [illegible] who will be living in this country five years from now, more of our [illegible]s will have to go into dairy farming -- especially farmers in the [illegible]nd on the Pacific Coast.

And farmers will have to grow more grain and hay to feed more cows. [illegible]f our people, the nutrition experts, say, simply don't eat enough [illegible] and yellow vegetables. So, it now seems likely that truck [illegible]ers [illegible]er the country may have to put more land in vitamin-rich vegetables [illegible]e our folks the kind of diet they need.

Compared to the five years before the war, the better-food-men [illegible]te farmers may need to raise probably about 10 per cent more hogs, [illegible]eep, and lambs to give all our people as much meat as they need. [illegible]uit growers, and growers of many other crops, will have to grow [illegible] too.

Remember, these are not mere guesses as to what farmers will need to [illegible] -- they are careful estimates of what food it will take to put all [illegible]eople on a good diet. True, we lack a lot of knowing all there is to [illegible]about food and how to use it. But when we add up the food value of [illegible]he food that farmers ordinarily grow -- and then divide the total [illegible] the number of people in the country, we find farmers simply don't [illegible]enough food to give all our own people the amount and kind of food [illegible]need. And we won't do it tomorrow or next season. But with the help

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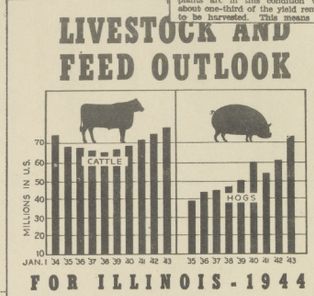

LIVESTOCK AND FEED OUTLOOK

FOR ILLINOIS - 1944

September

This folder is [illegible]

Prepared by the

[illegible]N STATE COLLEGE
[illegible]ENT OF AGRICULTURE
[illegible]STON COUNTY BOARD
[illegible]SORS COOPERATING

COOPERATIVE EXTENSION WORK
IN AGRICULTURE AND HOME ECONOMICS
STATE OF MICHIGAN
HOWELL

EXTENSION SERVICE
COUNTY AGENT WORK
PHONE 317

HAY THERE

GOOD SEEDINGS PRODUCE MICHIGAN'S MOST VITAL CROP.
ALFALFA JUNE CLOVER AND ALSIKE SEED IS SCARCE AND EXPENSIVE.
COMMON ALFALFA FROM NORTHERN AND CENTRAL STATES WILL HAVE TO BE USED
FAIR YIELDS MAY BE EXPECTED FROM THIS SEED FOR TWO YEARS.
SEED OF THIS ORIGIN IS NOT AS HARDY AS MICHIGAN AND CANADIAN SEED.
WATCH OUT FOR SOUTHERN, SOUTHWESTERN, ARGENTINE SEED—IT WON'T WORK.
LIMITED SEED SUPPLIES CAN BE STRETCHED BY USING MIXTURES SUCH AS:

ALFALFA ----------2 POUNDS	ALFALFA ----------4 POUNDS
RED CLOVER ------4 POUNDS	RED CLOVER ------2 POUNDS
ALSIKE ----------1 POUND	ALSIKE ----------1 POUND
BROME GRASS -----5 POUNDS	BROME GRASS -----5 POUNDS

5 POUNDS OF ALFALFA AND 6 OF BROME GRASS MAKE A GOOD MIXTURE.
INNOCULATION OF LEGUME SEEDS IS CHEAP INSURANCE.
USE EXTRA CARE IN THE PREPARATION OF THE SEED BED.
APPLY NECESSARY LIME AND WORK IN WELL BEFORE SEEDING IS MADE.
AT TIME OF SEEDING APPLY 400 POUNDS OF HIGH ANALYSIS FERTILIZER.
DISTRIBUTE SEED EVENLY NEAR THE SURFACE AND CULTIPACK IMMEDIATELY.
BUY YOUR SEED FROM A PRODUCER OR A REPUTABLE DEALER.
PLAN FOR GREATER PER ACRE YIELDS AS IT IS MORE ECONOMICAL.

Sincerely yours,
S. B. THOMAS,
County Agricultural Agent.

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